

SOAP

SOAPS • CLEANSERS • INSECTICIDES • DISINFECTANTS
POLISHES • EXTERMINATING • SANITARY SUPPLIES

VIRONES (IONONES)

Made in U. S. A.

Virone 100%
Virone Alpha
Virone Beta

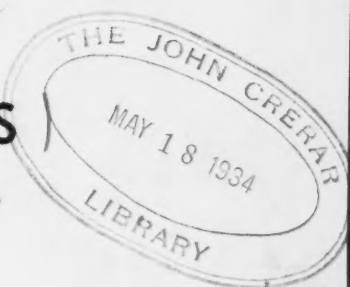
ALTHOUGH raw material cost of these splendid ionones has advanced 200 per cent, we can for a short time continue to supply them at the old price. Particularly useful for perfuming fine soaps and creams. We suggest that you look into this price situation now, and also let us send you samples.



UNGERER & CO.

13-15 West 20th St.

New York





Sales Features You Can Demonstrate

*You can prove the superiority of
these soaps at the customer's desk*

FALCON 40% CONCENTRATED
LIQUID TOILET SOAP

U. S. GOVERNMENT STANDARD
LIQUID TOILET SOAP

MECHANICS GRADE LIQUID
TOILET SOAP

FALCON 18% LIQUID SOAP

62% COCONUT OIL SOAP BASE

If you have buyers who can't be fooled but who really know values—if you have buyers who shop with raised eyebrows and sharpened pencils, then try this simple demonstration.

Pour a few drops of Falcon Liquid Toilet soap into your prospect's wetted hands. Watch his look of amazement as the soft, full lather billows up in endless supply. Smile with him as he dries his fingers clean. And when he rubs one hand over the other and feels the creamy softness of the skin—take out your order book. His quick glance will tell you he's been sold.

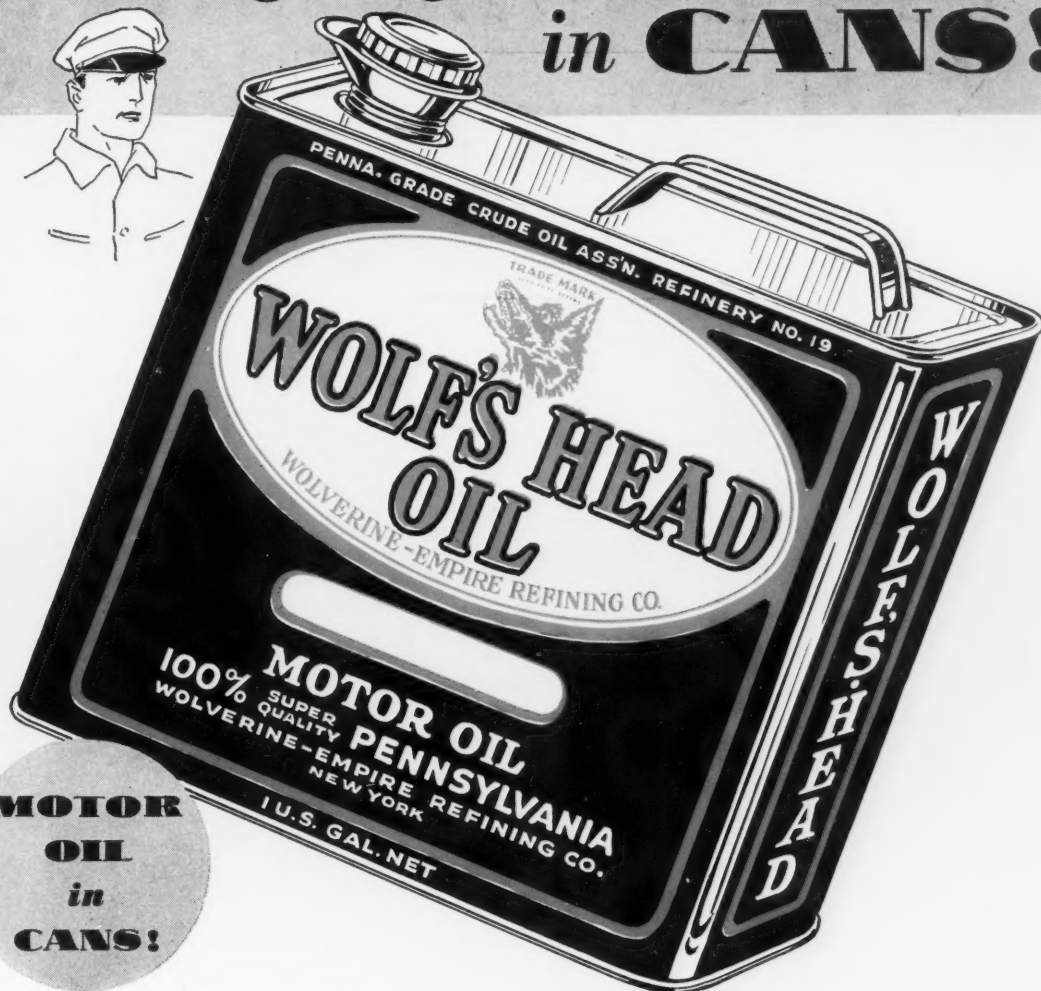
Falcon Liquid Toilet Soaps are made with what we believe is the greatest care and highest skill ever combined in the manufacture of soaps. Only edible cochineal coconut oil is used. The glycerine content remains intact. That is why each soap gives such mountainous lather and such soothing effect to the skin.

You may be surprised to learn that there is no price premium on these finer soaps. Why not write today for details and prices.

EAGLE SOAP CORPORATION
HUNTINGTON INDIANA

Falcon Liquid Toilet Soaps

"We're going to have it
in **CANS!**"



**MOTOR
OIL
in
CANS!**

...the DISTRIBUTION THEME of the HOUR!

"We're going to have it in CANS!" says the filling station attendant, and with warranted enthusiasm. He knows it means larger sales to his credit!

CANS—made to fit a definite need—to fit a given space allotment—to help along a modern selling job. These are targets at

which we aim—with consistent "hits"—by expert designing achievement—by experience *plus* facility.

Whether it be a plain Container, or the vivid, color-decorated Package to highlight display —

• HERE ARE PACKAGING HEADQUARTERS!



METAL PACKAGE CORPORATION

ESTABLISHED 1909

110 E. 42ND ST., NEW YORK CITY

• One of America's Largest Canmakers •

* SALES OFFICES AND PLANTS • NEW YORK CITY • BALTIMORE • BROOKLYN • CHICAGO • THE FINCHER CAN COMPANY DIVISION • HAMILTON • OHIO

SEND COUPON

E. I. DU PONT DE NEMOURS & CO., INC.
Organic Chemicals Dept., Fine Chemicals Division
Wilmington, Delaware

Gentlemen: I am attaching this coupon to my firm's letterhead for free sample of your new DU PONT SOAP GERANIOL. I would like to prove to myself that it is superior.

Name.....

Address.....

City..... State.....

FOR THIS FREE TRIAL SAMPLE OF THE NEW SOAP GERANIOL BY DU PONT



A test proves its superior qualities as well as its economy in soap formulae

Soap Geraniol as made by du Pont is not just another odor to be added to the existing list of soap aromatics. It is entirely distinctive. A scientifically made product of fairly high alcohol content. Exceptionally uniform. Is a light amber color and has a sweet, pungent odor.

If we can judge from what soap manufacturers who have tried it say, Du Pont Soap Geraniol fills a long-felt need in the soap indus-

try. After putting it through actual working tests they find it exhales an agreeable rosy odor even when used in small quantities. In a bouquet it produces that much to be desired velvety note.

And the thing that makes this Soap Geraniol so practical to use is its economy. Mail coupon (attached to your firm's letterhead) for free sample and test it in your own laboratory. For, self proof is most convincing.



AROMATICS

E. I. DU PONT DE NEMOURS & COMPANY, INC., Organic Chemicals Dept., WILMINGTON, DELAWARE

SOAP

Reg. U. S. Patent Office

Volume X
Number 5

Contents

May, 1934

«



SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 67. Production Section begins on page 55.

«

• Editorials	15
• Oil Excise Tax Becomes Law	17
• The Hospital Market— By Faber Birren	21
• The Oil Soap Industry— By S. J. Miller	25
• Detergents—Old and New— By Harold A. Sweet	55
• Insecticide and Disinfectant Convention	84
• Clothes Moths and Their Control— By Alfred Weed	86
• Estimation of Pyrethrins— By Harvey A. Seil	89
• Personal and Impersonal	35
• Contracts Awarded	43
• Records of Trademarks	49
• New Patents	41
• Market Reports	44-47
• Current Raw Material Prices	49-50
• Products and Processes	61

«

Published monthly on the 15th by

MACNAIR-DORLAND COMPANY, INC.
136 LIBERTY STREET NEW YORK, N. Y.

Subscription rate \$3.00 per year. Foreign, except Canada, \$4.00. Canadian, \$5.00. Copy closing dates—7th of month of issue for reading matter and 25th of month preceding month of issue for display advertising. Entered as second-class matter, April 11, 1931, at Post Office, New York, under act of March 3, 1879. Mail circulation, April, 1934, issue 2,857 copies. Total distribution 3,000.

HEPTYLLYS B

is rapidly being recognized as one of the outstanding aromatic chemicals now being offered to the perfume and soap manufacturers. The reasons for this recognition are that Heptyllys B has a definite, flowery note—a lasting odor—blends readily with other aromatics in compounds—has a greater odor volume than other aromatic chemicals in the same price and odor class—and will not discolor.

Heptyllys B is our trade name for a purified Alpha-Amyl-Cinnamic-Aldehyde.

Upon request we will be glad to submit samples of Heptyllys B.

The Naugatuck Chemical Company

Aromatics Division

1792 BROADWAY



NEW YORK, N. Y.



CLIFTON

Points the way to

BETTER PROFITS . . .

- Liquid Soap Base
- Scrub Soap Base
- Semi-Castile Liquid Soap
- Liquid Soap Dispensers
- Rub-No Floor Wax
- Pine Disinfectant
- Cresolene Disinfectant
- Fragrantaire Blocks
- Wall Containers
- Deodorette Cakes
- Dazzle Metal Polish
- Shampoo Liquid & Base
- Silver Polish Paste
- Furniture Cream

USE THIS COUPON



FOR instance, take DEODORETTE CAKES!

You can do so much better with this quality CLIFTON guaranteed product because it is packed more attractively, besides being a superior deodorant cake in every way. We have often been told of sales increases from 25 to 50%, even as high as 100%; there must be a good reason.

Wherever refreshing, sanitary conditions are desired you have a logical prospect for DEODORETTE CAKES. Each cake weighs four ounces and lasts several weeks; larger FRAGRANTAIRES are also available.

Remember the attractive imprint labels and forceful, sales-producing circulars are all ready to boost YOUR sales . . . yet prices run no higher than for ordinary cakes! Order them today . . . your only "come-back" will be for MORE . . . and MORE!

CLIFTON CHEMICAL CO., INC.

Clifton Building, 246 Front Street, New York

Naturally, Clifton, we'd like to increase our sales. What can you do for us on the items checked?

- | | | |
|---|--|---|
| <input type="checkbox"/> Semi Castile Liquid Soap | <input type="checkbox"/> Dazzle Metal Polish | <input type="checkbox"/> Deodorizing Cakes & Blocks |
| <input type="checkbox"/> Liquid Soap Base | <input type="checkbox"/> Shampoo Liquid & Base | <input type="checkbox"/> Deodorizing Block Containers |
| <input type="checkbox"/> Oil Soap | <input type="checkbox"/> Shaving Cream | <input type="checkbox"/> Coal Tar Disinfectant |
| <input type="checkbox"/> Liquid Floor Cleanser | <input type="checkbox"/> Furniture Cream | <input type="checkbox"/> Pine Tree Disinfectant |
| <input type="checkbox"/> Silver Polish Paste | <input type="checkbox"/> Bar Oil | <input type="checkbox"/> Rub-no Wax |

Name

Address

WHO CARES ABOUT LINERS STAYING IN CAPS?

Everybody cares, really! If a liner falls out of a cap the consumer may not even know that it is gone, but he cannot help notice that the bottle leaks. Should a liner stick to the top of the container as the cap is removed—as frequently happens with some types of caps—he is put to the annoyance of picking it off, probably getting fingers messy in the bargain, and then either sticking it back in the cap or throwing it away. Thereafter he has a product that is poorly sealed.

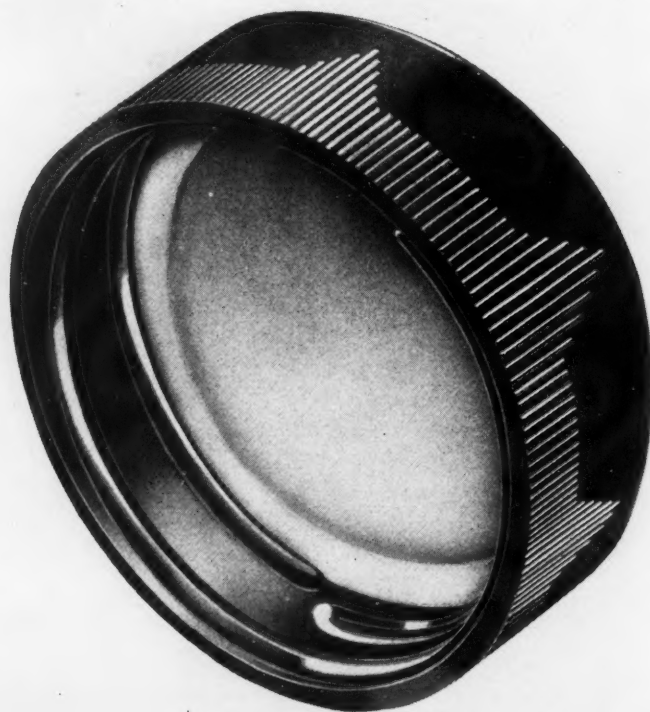
Manufacturers care about liners, too. For the simple reason that if one has dropped out of its cap unnoticed, that package goes out imperfectly sealed and is likely to cause trouble. Furthermore, they do not want the trouble of inspecting every cap before it is applied. Still further, they do not want liners fastened in with an adhesive which may impart some foreign odor or flavor. Even storekeepers care about liners . . . they don't want leaky packages to mess up nearby merchandise and cause complaints and returns.

There are other good reasons for having liners held securely in place, and at the same time allowing them to rotate freely inside the cap, but we cannot explain them all here, nor how the liner retaining ledge and recess on Anchor Molded Caps overcome all this trouble. But we can send you our book, "The Anchor Molded Cap" which tells the whole story in detail. May we?

ANCHOR CAP & CLOSURE CORPORATION
LONG ISLAND CITY, N. Y. TORONTO, CANADA

Branch Offices: ATLANTA • BOSTON • CHICAGO • CLEVELAND • DETROIT
HOUSTON • LOS ANGELES • LOUISVILLE • MONTREAL • NEW YORK • PHILA-
DELPHIA • PITTSBURGH • ROCHESTER • SAN FRANCISCO • ST. LOUIS • TORONTO

An inside view of an Anchor Molded Cap. The ridge just below the liner and just above the thread is that remarkable little patented feature that makes Anchor Molded Caps stand out above all others—the liner retaining ledge. The liner recess is the space above it into which the liner fits, loosely but securely.



ANCHOR MOLDED CAPS FOR SOAPS & INSECTICIDES



AT LAST A TRUE

Nerol

AT A PRICE PERMITTING ITS FREE USE IN SOAP COMPOSITIONS

★ A new process developed by Albert Verley, Inc., now extends the use of Nerol. Formerly available only at a price prohibitive except for the most expensive perfumery products, it is now offered at a modest cost within the means of soapmakers. ★ Nerol's rosy fragrance adds a new, appealing note in building up Rose or Neroli compositions. This new Verley product is stable and will not cause discoloration. A sample and price will be submitted cheerfully upon request.

★ BY *Albert Verley*, INC.

D. A. BENNETT, President, 11 East Austin Ave., Chicago; L. I. Zollinger, Vice President, 114 East 25th St., New York. Exclusive American representatives for ETABLISSEMENTS ALBERT VERLEY, 8, Quai de la Marine, Isle St. Denis, (Seine), Paris, and S. A. TOMBAREL FRERES, Grasse, France. Pacific Coast Distributors: Melford Chemical Company, 1026 Santa Fe Ave., Los Angeles, Calif.

PERFUME COMPOSITIONS—Verley and Tombarel standard Essences, with competent but unobtrusive advisory service, are available to those equipped for compounding.

COLUMBIA



SODA ASH

•
CAUSTIC SODA

•
MODIFIED SODAS

•
CALCIUM CHLORIDE



Branch Sales Offices

BARBERTON, OHIO
431 - 451 ST. CLAIR ST.
CHICAGO

CAREW TOWER
CINCINNATI

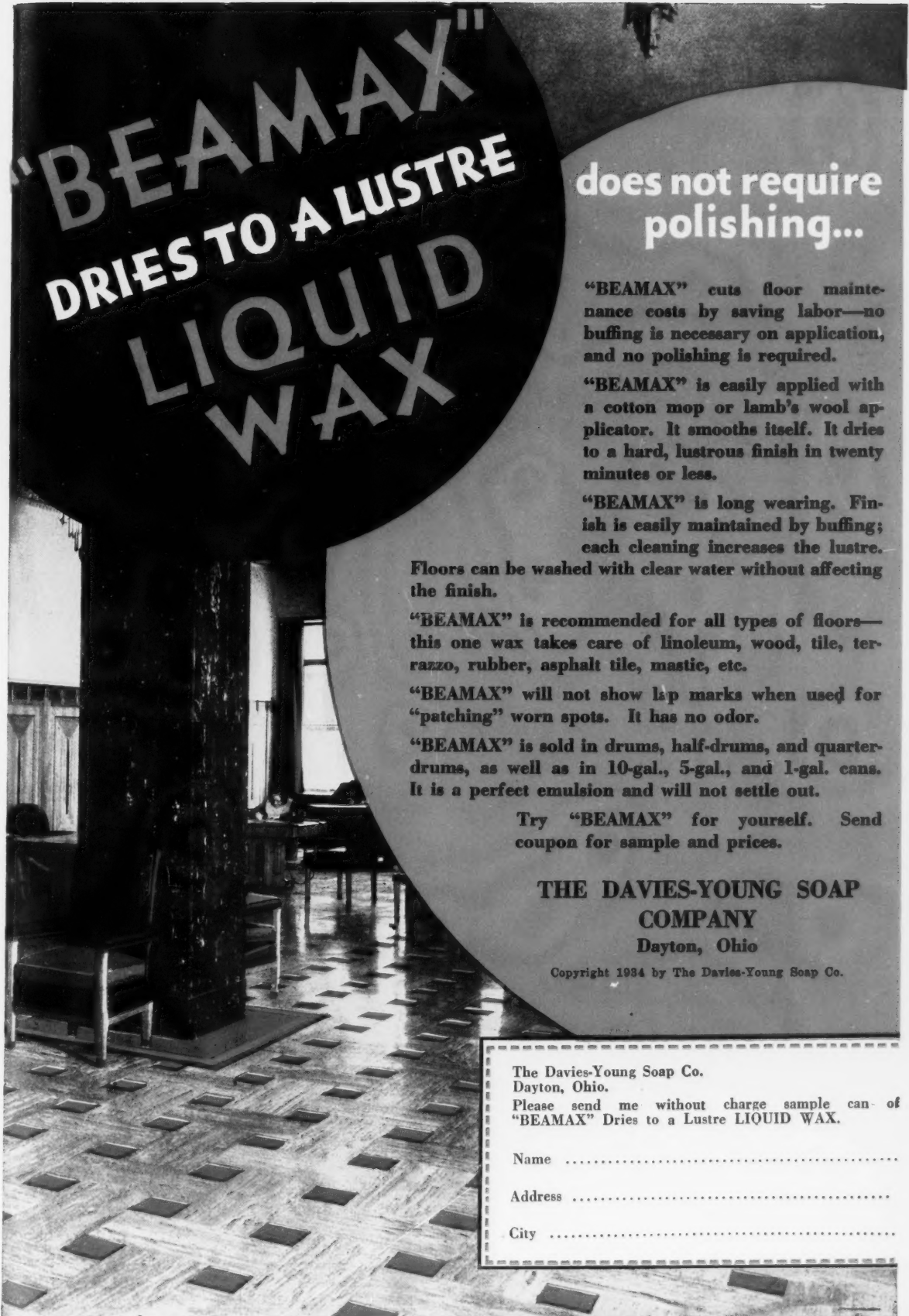
SANTA FÉ TERMINAL BLDG.
DALLAS

Plant at BARBERTON, OHIO

THE COLUMBIA ALKALI CORPORATION

Executive Sales Offices

EMPIRE STATE BUILDING, NEW YORK



"BEAMAX" DRIES TO A LUSTRE LIQUID WAX

does not require
polishing...

"BEAMAX" cuts floor maintenance costs by saving labor—no buffing is necessary on application, and no polishing is required.

"BEAMAX" is easily applied with a cotton mop or lamb's wool applicator. It smooths itself. It dries to a hard, lustrous finish in twenty minutes or less.

"BEAMAX" is long wearing. Finish is easily maintained by buffing; each cleaning increases the lustre.

Floors can be washed with clear water without affecting the finish.

"BEAMAX" is recommended for all types of floors—this one wax takes care of linoleum, wood, tile, terrazzo, rubber, asphalt tile, mastic, etc.

"BEAMAX" will not show lap marks when used for "patching" worn spots. It has no odor.

"BEAMAX" is sold in drums, half-drums, and quarter-drums, as well as in 10-gal., 5-gal., and 1-gal. cans. It is a perfect emulsion and will not settle out.

Try "BEAMAX" for yourself. Send coupon for sample and prices.

**THE DAVIES-YOUNG SOAP
COMPANY**
Dayton, Ohio

Copyright 1934 by The Davies-Young Soap Co.

The Davies-Young Soap Co.
Dayton, Ohio.

Please send me without charge sample can of
"BEAMAX" Dries to a Lustre LIQUID WAX.

Name

Address

City

No Chemical Plant Is Complete Without a Compact Technical Library

And No Such Library Is Complete
Without These Well-Known

TECHNICAL BOOKS

- Perfumes, Cosmetics and Soaps**, by Poucher. New and revised edition of this standard reference. Volume I, a dictionary of raw materials, 394 pages, \$6.50. Volume II, dealing with the manufacture of soaps, perfumes and toilet preparations, 406 pages, \$9.00.
- The American Soap Maker's Guide**, by Meerbott and Stanislaus. The most recent American publication on soap manufacturing. 750 pages. \$7.50.
- Textile Soaps and Oils**, by Hurst & Simmons. A handbook on the preparation and properties of soaps and oils used in textile manufacturing, 212 pages. \$4.00.
- Henley's Twentieth Century Book of Recipes, Formulas and Processes**. A handy reference book listing 10,000 miscellaneous formulas, including special sections for soaps, polishes, insecticides, etc. 800 pages. \$4.00.
- The Industrial Chemistry of Fats and Waxes**, by Hilditch. A study of the fats and waxes in relation to their use in industry. 450 pages. \$6.00.
- Manual of Toilet Soap, Making**, by Deite. Translation from a standard German text on manufacture of toilet and medicated soaps. 360 pages. \$8.00.
- Art of Soapmaking**, by Watt. Practical handbook on the manufacture of hard and soft soaps. 323 pages. \$4.00.
- Modern Soap Perfumes**, by Sedgwick. A practical handbook on the science of soap perfumery. \$1.00.
- Hydrogenation of Organic Substances**, by Ellis. Latest revised edition of this well-known book, pre-eminent in the field of hydrogenation. 990 pages. \$15.00.
- Modern Soap and Detergent Industry**, by Martin. Second Edition. An outstanding contribution to the literature on soap manufacture. Thoroughly up to date work covering processes, apparatus and formulas. In two volumes—cloth binding, 6½ x 10½. Price \$12.00 for each volume.
- Pyrethrum Flowers**, by Gnadinger. A complete compilation of all known facts on pyrethrum; its history, sources, evaluation, chemistry and uses. The problems involved in the manufacture of pyrethrum products are given thorough and lucid exposition. 270 pages. \$3.50.
- Soaps and Proteins, Their Colloid Chemistry in Theory and Practice**, by Fischer. 272 pages. \$4.00.
- Soaps**, by Hurst. A practical manual of soap manufacture. 440 pages. \$8.50.
- A Handbook of Soap Manufacture**, by Simmons and Appleton. 167 pages. \$4.00.
- Soap Blue Book, A Buyer's Guide**. 195 pages. \$1.00.
- Vegetable Fats and Oils**, by George S. Jamieson. 444 pages. An American Chemical Society Monograph. Covering classification, occurrence, properties, analytical methods, etc., of vegetable oils, fatty acid and other derivatives; also production and refining methods. \$6.50.
- Chemistry of Laundry Materials**, by D. N. Jackman. A new book for the laundry operator, containing valuable information on the chemistry of laundry materials. Discusses alkalies, soaps, bleaches, starches, also the newer detergents, synthetic soaps, etc. 230 pages. \$2.50.

Owing to the large number of books supplied it is impossible to open accounts on individual book orders or to supply books on approval. Please send check with order.

MacNAIR-DORLAND CO.

136 LIBERTY STREET

NEW YORK CITY

— N I A G A R A — C A U S T I C P O T A S H

*Niagara Quality is
constant...constant...
constant...constant...*

Thousands of visitors to Niagara Falls tell us that the most impressive fact about them is that constant, constant, constant flow of water . . . millions upon millions of gallons . . . a never-changing, uninterrupted flow, hour after hour after hour . . .

Of this same constancy is the quality of Niagara Caustic Potash. Always dependable. Always uniform. Always *right*—in solid, flake or liquid form.

Remember—Niagara Alkali was the first in this country to manufacture Caustic Potash. And years of patient development have brought Niagara quality to a level unequalled here or abroad.



**NIAGARA ALKALI
COMPANY**

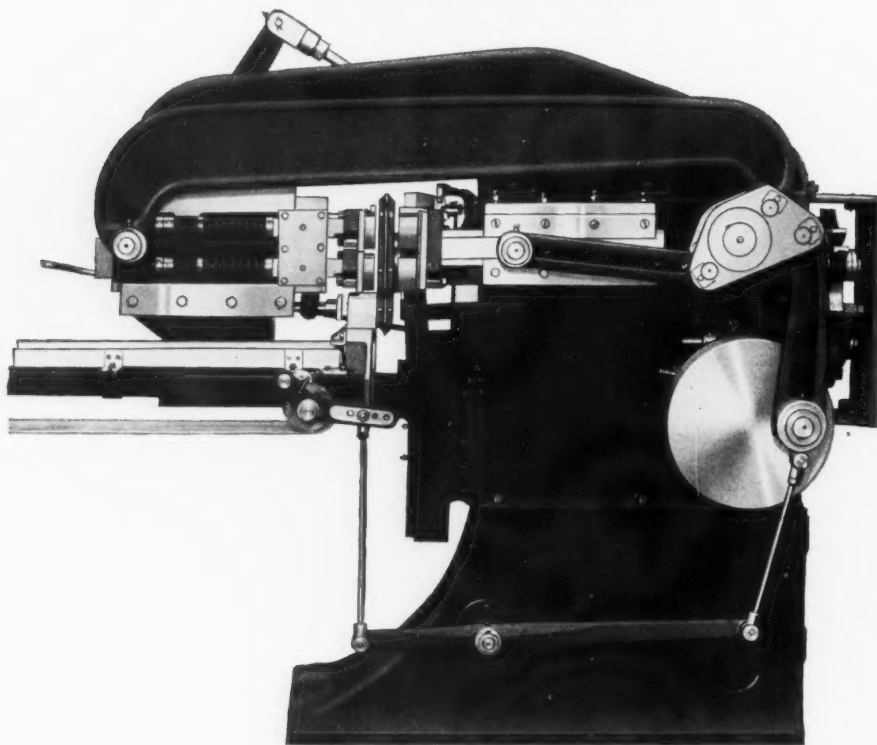
9 EAST FORTY-FIRST STREET, NEW YORK, N.Y.

*Associated with Electro Bleaching Gas Company
Pioneer Manufacturer of Liquid Chlorine*

JONES

Laundry and Toilet Soap Press

DOUBLE TOGGLE STROKE



TYPE K

This press in duplex form will produce 250 cakes of toilet soap per minute. It is supplied only in simplex form for laundry soap to press from 90 to 140 cakes per minute. The picture shows a duplex press arranged for toilet soap.

The pressing mechanism is of the TOGGLE TYPE and produces a powerful and most efficient stroke for pressing soap. The DIES travel RAPIDLY toward the soap with a gradually slowing motion, which reaches a minimum when delivering the full power just when the dies are on the cake.

A LONG DWELL of the DIES on the SOAP is a vital feature and one not obtainable with any other type of pressing mechanism. Making the second stroke the dies leave the surface of the soap about one-fourth of an inch and return under full power, BRINGING OUT THE LETTERING AND LINES perfectly. The soap then is ejected from die box into a take-off chute, where it is pushed from behind the die box by a positive mechanism.

FEATURES tending to give long life to the machine are: BALANCE—LACK OF VIBRATION AT HIGHEST SPEED—BRONZE BUSHINGS FOR PRINCIPAL SHAFTS—and ZERK OILERS THROUGHOUT.

FED AND RUN TO CAPACITY BY ONE OPERATOR

R. A. JONES & COMPANY, Inc.

P. O. BOX 485 • CINCINNATI, OHIO

The Standardized *Constant Motion Cartoner* packages bottles, jars, tins, collapsible tubes and many other articles. It feeds, folds, and inserts direction sheets and corrugated board liners with the loads



SOAP

Volume Ten

Number Five

EDITORIAL

WITH the signing of the Revenue Act on May 10 by President Roosevelt, the three-cent tax on practically all imported oils which go to the soap kettle, immediately became law. A sop was thrown to the Philippine Islands in the form of a five-cent tax on all coconut oil originating outside of the United States or territories thereof. The new excise tax at one sweep doubles the price of about two-thirds of all the oils and fats used by American soap makers. On the smaller soap manufacturers, the burden is greatest, especially on those making liquid soaps, shampoos, oil soaps, and cold-made toilet soaps, for in these soaps vegetable oils of foreign origin are used almost exclusively. There will probably not be any great shifting about in the proportions of fats used in soaps heretofore. A natural preference for domestic tallow, grease, soap stock and foots will likely develop to the limit of available supplies. There may be some increase in imports of tallow. On the whole, however, the opinion seems to be that the shift in demand will only amount to a comparatively small percentage.

The main questions confronting the soap industry now are how, when, and where the tax will be collected. It is to apply to "first processing," according to the law. Where imported oils go directly to the soap kettle without further ado, there is no doubt but that the soap maker must keep the records and pay the tax. But what of oils which are previously refined and treated prior to purchase by the soap maker? This and other questions will have to be settled by the Bureau of Internal Revenue. No doubt official regulations will be issued shortly covering the pay-

ment of the tax in detail. In the meantime, it should be pointed out that this is an excise tax covering "first processing," that it does not apply to soap manufactured in full or in part prior to May 10 which is still on hand. It does apply to oils on hand as soon as they are processed for the first time. The tax will probably be payable monthly direct to the nearest collector of Internal Revenue as in the case of other excise taxes. Complete records will have to be kept by soap makers and other consumers, which along with the plant will be subject to periodic inspection by representatives of the revenue bureau. It is understood that a special division of the Bureau of Internal Revenue will be set up to handle the oil tax and that special regulations are now being compiled for its collection.

—o—

THE suggestion of reconsideration of the tax of Philippine coconut oil from President Roosevelt to Congress, because the tax violates the spirit of the Philippine independence arrangement, does not carry much conviction with it, according to our reaction. Congress knows all about the Philippine independence plan. It chose to ignore the President's original request. Why should it do otherwise with a second? It seems quite obvious that Congress—the House in particular—was aiming more at Philippine coconut oil than any other imported oil when the original tax was conceived. The other oils were put in later, to correct a glaring discrimination, and to make the picture look more natural. In fact, the entire tax situation has been so thoroughly saturated with politics, that we do not believe the merits of the thing were ever

honestly considered. Do not forget that a majority of Congress comes up for reelection next fall, and that the farmer vote is the largest vote of all. In the next Congress, may be politics will play less of a part in a reconsideration of the tax.

—o—

SOAP material costs, in which oils and fats play by far the major part, have been increased sharply by the three-cent excise tax and the general rise in commodity prices of recent months. Taking the industry as a whole, general costs have probably been advanced at least fifty per cent. There is no valid reason why this increase should not be passed on at once to the jobber and dealer, and by them to the consumer. Those who are lucky enough to have extra stocks of soap on hand—both manufacturers and jobbers—should consider it an opportunity for a better profit, and not as an opportunity to undersell a competitor in a less advantageous position.

—o—

THE controversy which has been carried on in the State of Virginia for some months regarding the proposed requirement for labeling soaps and soap products with the net weight of the contents, comes closer to the business of every soap maker than he may realize. If such regulations become law in Virginia, there is no doubt that other states will follow the lead and adopt similar laws. This is the usual course of state legislation in the United States.

The Association of American Soap and Glycerine Producers has been actively opposing the adoption of these labeling regulations in Virginia. The Association has maintained that to label a bar of soap or package of a soap product with the net weight is impractical. This stand is based on an intimate knowledge of soap and how it acts after it leaves the factory. The legislators of Virginia are apparently not familiar with the fact that all soaps contain more or less moisture, and that this moisture is lost in varying degrees according to conditions. Such a law would work a hardship on every soap maker shipping into Virginia or any other state with similar regulations. It would accomplish nothing which we can see of any real value to the consumer.

SOME of the renderers have been rather harsh in their criticism of us because we have held that a three-cent excise tax on imported oils and fats for technical uses is excessive. We have contended that the domestic producer of oils and fats needed some kind of protection from the situation in which he has found himself during the past few years, and that such protection would be to the eventual best interests of the fat consumer as well. However, when the domestic producer asks for—and secures—a tax which we consider grossly excessive, and a tax which will place its greatest burden on the rank and file of small soap manufacturers, then we do not hesitate to criticize the tax or the false colors under which it was obtained in Washington.

—o—

WHERE there is an apparent conflict of two or more codes which affect any business, it is the wise procedure for a manufacturer to submit his problem to the code authorities of the industries involved in the form of a joint letter. This is the method suggested by Roscoe C. Edlund, executive secretary of the code authority of the Soap and Glycerine Manufacturing Industry, for clarifying involved code situations in borderline cases. He also points out that where the conflict is such that it may do injury to a manufacturer, arrangements may be made with the NRA for exemption from one or more of the conflicting codes.

—o—

SAID one A. M. Loomis, secretary of the National Dairy Union, in a communication to a creamery publication: "Cotton farmers know that cottonseed oil will be used where coconut oil is now used in the manufacture of soap." Cottonseed oil in soap! And may be hereafter railroad tracks are going to be of silver, and creamery butter will be the base of all good axle grease. Well, at any rate, we imagine everybody will get a big kick out of their new cottonseed oil soap,—especially the manufacturers thereof.

—o—

BEAR grease is just at the moment in big demand on the Pacific Coast and in Canada for use in "hair tonics." Skunk oil, snake oil, turtle oil—and now bear grease is staging a comeback. All of which only goes to prove that there is always a market for baloney, no matter how it is sliced or what it is called.

Oil Excise Tax Becomes Law

Revenue Bill Carrying Three-Cent Tax on Imported Oil
Signed by President—Regulations Ready May 18

THE Revenue Bill of 1934, containing a three-cent excise tax on all important vegetable and fish oils for the soap kettle, was signed by the President on May 10 and immediately became law. Regulations covering the collection of the tax by the Bureau of Internal Revenue, are being drawn up and are expected to be ready in about a week after the signing of the bill, which date would be May 18. It is understood that a special department of the Bureau will be set up for the collection of this tax from manufacturers of soaps, margarin, shortening, and others. The total tax will probably run close to forty million dollars annually of which the soap industry will pay between twenty-five and thirty millions.

Although no official word regarding the time and place for collecting the tax has been issued by the Bureau of Internal Revenue, it applies to first processing of the oils into articles for sale which would be at the soap kettle in the case where imported oils are used direct. In the case of oils which are refined here prior to sale to the soap maker, it is stated to be likely that the soap maker will also pay the tax, the soap making operation being considered "first processing" for the sake of simplification. However, this will not be definitely known until the official regulations are issued.

The text of the act as it refers to the oil excise tax follows:

Sec. 602½ Processing Tax on Certain Oils

(a) There is hereby imposed upon the first domestic processing of cocoanut oil, sesame oil, palm oil, palm kernel oil or sunflower oil, or any combination or mixture containing a substantial quantity of any one or more of such oils with respect to any of which oils there has been no previous first domestic processing, a tax of three cents per pound, to be paid by the processor. There is hereby imposed (in addition to the tax imposed by the preceding sentence) a tax of 2 cents per pound, to be paid by the processor, upon the first domestic processing of cocoanut oil or of any combination or mixture containing a substantial quantity of cocoanut oil with respect to which oil there has been no previous first domestic processing, except that the tax imposed by this sentence shall not apply when it is established, in accordance with regulations prescribed by the Commissioner with the approval of the Secretary, that such cocoanut oil whether or not contained in such a combination or mixture (A) is wholly the production of the Philippine Islands or any other

possession of the United States, or (B) was produced wholly free from materials the growth or production of the Philippine Islands or any other possession of the United States, or (C) was brought into the United States on or before the 30th day after the date of the enactment of this Act or produced from materials brought into the United States on or before the 30th day after the date of enactment of this Act, or (D) was purchased under a bona fide contract entered into prior to April 26, 1934, or produced from materials under a bona fide contract entered into prior to April 26, 1934. All taxes collected under this section with respect to cocoanut oil wholly of Philippine production or produced from materials wholly of Philippine growth or production, shall be held at a separate fund and paid to the Treasury of the Philippine Islands, but if at any time the Philippine government provides by any law for any subsidy to be paid to the producers of copra, cocoanut oil, or allied products, no further payments to the Philippine Treasury shall be made under this subsection. For the purpose of this section the term "first domestic processing" means the first use in the United States, in the manufacture or production of an article intended for sale, of the article with respect to which the tax is imposed, but does not include the use of palm oil in the manufacture of tin plate.

(b) Each processor required to pay the tax imposed by this section shall make monthly returns under oath in duplicate and pay the tax to the collector of internal revenue for the district in which is located his principal place of business, or if he has no *principal* place of business in the United States, then to the collector of internal revenue at Baltimore, Maryland. Such returns shall contain such information and be made at such times and in such manner as the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, may by regulations prescribe. The tax shall, without assessment by the Commissioner or notice from the collector, be due and payable to the collector at the time so fixed for filing the return. If the tax is not paid when due, there shall be added as part of the tax interest at the rate of 1 per centum per month from the time the tax became due until paid.

(c) Subject to such rules and regulations as the Commissioner, with the approval of the Secretary,

may prescribe, any person who has sold to a State, or political subdivision *thereof*, for use in the exercise of an essential governmental function any article containing any such oil, combination, or mixture, upon the processing of which a tax has been paid under this section shall be entitled to a credit or refund of the tax paid with respect to the quantity of such oil, combination, or mixture contained in such article.

(d) Upon the exportation to any foreign country or to a possession of the United States of any article wholly or in chief value of an article with respect to the processing of which a tax has been paid under this section, the exporter thereof shall be entitled to a refund of the amount of such tax. Upon the giving of bond satisfactory to the Secretary for faithful observance of the provisions of this section requiring the payment of taxes, any person shall be entitled, without payment of the tax, to process for such exportation any article with respect to which a tax is imposed by this section.

(e) If (1) any person has, prior to January 26, 1934, made a bona fide contract for the sale on or after the effective date of this section of any article wholly or in chief value of an article with respect to which a tax is imposed by this section or of any article with respect to which a tax is imposed by this subsection, and if (2) such contract does not permit the addition to the amount to be paid thereunder of the whole of such tax, then (unless the contract expressly prohibits such addition) the vendee shall pay so much of the tax as is not permitted to be added to the contract price. Taxes payable by the vendee shall be paid to the vendor at the time the sale is consummated and shall be returned and paid to the United States by the vendor in the same manner as other taxes under this section. In case of failure or refusal by the vendee to pay such taxes to the vendor, the vendor shall report the facts to the Commissioner, who shall cause collection of such taxes to be made from the vendee.

(f) All provisions of law (including penalties) applicable in respect of taxes imposed by section 600 of the Revenue Act of 1926, shall, in so far as applicable and not inconsistent with this section, be applicable in respect of the taxes imposed by this section.

The tax on whale, fish, and marine animal oils is covered by an amendment to the Revenue Act of 1932, as follows:

"Section 601 (c) of the Revenue Act of 1932 is amended by adding at the end thereof a new paragraph, as follows:

"(8) Whale oil (excerpt sperm oil), fish oil (excerpt cod oil, cod-liver oil, and halibut-liver oil), marine animal oil, and any combination or mixture

containing a substantial quantity of any one or more of such oils, 3 cents per pound. The tax on the articles described in this paragraph shall apply only with respect to the importation of such articles after the date of the enactment of the Revenue Act of 1934, and shall not be subject to the provisions of subsection (b) (4) of this section (prohibiting drawback) or section 629 (relating to expiration of taxes)."

IN commenting on the fish oil tax, John B. Gordon, of the Bureau of Raw Materials for the American Vegetable Oils and Fats Industries, stated recently:

"We would call your attention to the fact that the above constitutes an amendment to Section 601 (c) of the Revenue Act of 1932 and that the result of the change is to turn the excise tax on whale oil, fish oil and other marine animal oils into an import tax rather than a processing tax. This was done on the insistence of the Secretary of State, who pointed out that under the commercial treaties which the United States has with various foreign nations, it is illegal to levy a higher internal tax upon merchandise imported from these countries than is levied upon the goods or merchandise of our own nationals. The processing taxes on the remaining oils and fats, he stated, he could not object to as constituting treaty violations, as the word 'imported' was not used in connection with them, hence the tax applies to the domestic production, if any, just the same as on the imported article. In the case of the marine oils the processing tax as originally drawn applied only to the imported product and therein the foreign nations found cause for complaint. The fact that there was no domestic production of some of the other oils, the Secretary of State stated, did not alter the situation as regards them, because if there were such the tax would hit them, whereas in the case of marine oils it could not. The outcome was the change of the tax on marine oils to an import tax solely. Contained in several of the treaties, such as those with Germany, Norway and others, appears the following clause: 'The nationals and merchandise of each high contracting party within the territories of the other shall receive the same treatment as nationals and merchandise of the country with regard to *internal taxes*, transit duties, charges in respect to warehouses and other facilities and the amount of drawbacks and bounties.'"

Further comments by Mr. Gordon on the excise tax explain other features.

"The tax, as levied, is collected on the first domestic processing of the oils subject to it. The tax, therefore, does not apply to stocks of oil in storage and can only be collected when these oils are put through a manufacturing process. The mixing of oils does not constitute a manufacturing process. It is specifically stated that the tax shall apply to combinations and mixtures of oils containing any appreciable percentage of any one oil subject to the tax. Oils treated with alkalis, acids, etc., so that they are saponified, sulphonated, etc., would in

our opinion not be subject to the tax, as they would no longer be saleable as coconut oil, sperm oil, palm oil, etc., as their identity would have been changed. *There is no floor stock tax on manufactured goods embodied in this bill*, no matter whether you are holding these goods for your own account or for that of your customers."

"In respect to Section 602 containing the excise taxes on oils and fats, the Congress did what was most generally expected, viz., they retained the 3c per pound tax straight through on Philippine coconut oil and on the various oils presumed to be in competition with Philippine coconut oil, and did the unexpected thing of taxing coconut oil from sources other than the Philippines at the rate of 5c per pound. This having been done it was claimed that the Philippines were given a 2c preferential in the American market on coconut oil. The only result from this differential, however, will be to embarrass the domestic crushers of copra, preventing them from purchasing copra from sources outside the Philippines, but it will not help the Filipino as palm kernel oil carries the same tax as Philippine coconut oil, viz., 3c per pound. Hence, if there were to be any difficulty in supplying the demand from Philippine sources, palm kernel oil would come in to fill the gap. Needless to state, however, the importations of coconut oil which can be made into the United States after payment of the 3c per pound tax will be so small compared to the volume which the Philippines can supply that the setting up of the 2c differential in favor of Philippine oil is an empty gesture. The differential might as well have been made 10c per pound in favor of the Philippines—it would have been as useless to them."

Net profits of Monsanto Chemical Co. for the first quarter of 1934 were \$674,177, or \$1.56 a share on the outstanding common stock. This compares with \$296,920, or 69.5c a share, in the corresponding period of 1933.

A new essential oil is obtained from a citrus fruit called colobot, which grows wild and is also cultivated in the Philippines. The oil is very fragrant with a refreshing lime-like odor, and should serve as a useful constituent for making perfume bouquets. The oil has a citronellal content of 26 per cent. S. S. Tanchico and A. P. West. *Philippine J. Science* 52, 263-7 (1933).

F. J. Solon has been named vice-president of Owens-Illinois Glass Co., this post being in addition to his present duties as general sales manager of the concern.

E. E. Oppenheimer, consulting chemist, formerly located at Newark, N. J., has become a member of the staff of Foster D. Snell, Inc., Brooklyn.

Labbe Products Mfrs., formerly located at Worland, Wyo., have moved to 120 West Second St., Casper, Wyo.

A. M. T. A. MEETS AT WALDORF JUNE 5-7

The annual meeting of the Associated Manufacturers of Toilet Articles is scheduled for June 5, 6 and 7 at the Hotel Waldorf-Astoria, New York. In view of the recent acceptance of the cosmetic code it is expected that this subject will be one of the important ones to be discussed at the meeting. A special session will be devoted



One of a series of clever cartoons by Lemmemyer which are being used to advertise the Toilet Goods convention at the Waldorf, New York, on June 5, 6, 7, by the entertainment committee

to a discussion of how best to coordinate the work of the various organizations in the cosmetic field in carrying out the purposes of the code. As usual an elaborate program of entertainment has been provided by the committee, headed this year by Charles Kelly, Hagerty Bros. The golf tournament, a feature in previous years, has been revived this year and will be held on the Paumonok course, near Flushing, L. I., on Wednesday afternoon, June 6. Luncheon this day will be optional, at the club or the hotel. The ladies will be occupied with a bridge tournament at the hotel while the golfers compete. Instead of a theatre party this year, the first evening will be given over to a "Monte Carlo" night at the hotel, another innovation. The program for Thursday evening, June 7, includes the annual banquet and dance which will also be held at the Waldorf, following along the lines of similar parties in the past.



THE SOURCE OF
UNIFORM AND DEPENDABLE
AROMATIC CHEMICALS
FOR THE SOAP INDUSTRY
SINCE 1923

FELTON CHEMICAL COMPANY, INC.

603 JOHNSON AVENUE, BROOKLYN, N. Y.

AROMATIC CHEMICALS — NATURAL ISOLATES — PERFUME OILS — ARTIFICIAL FLOWER
& FLAVOR OILS

Stocks carried in following cities:

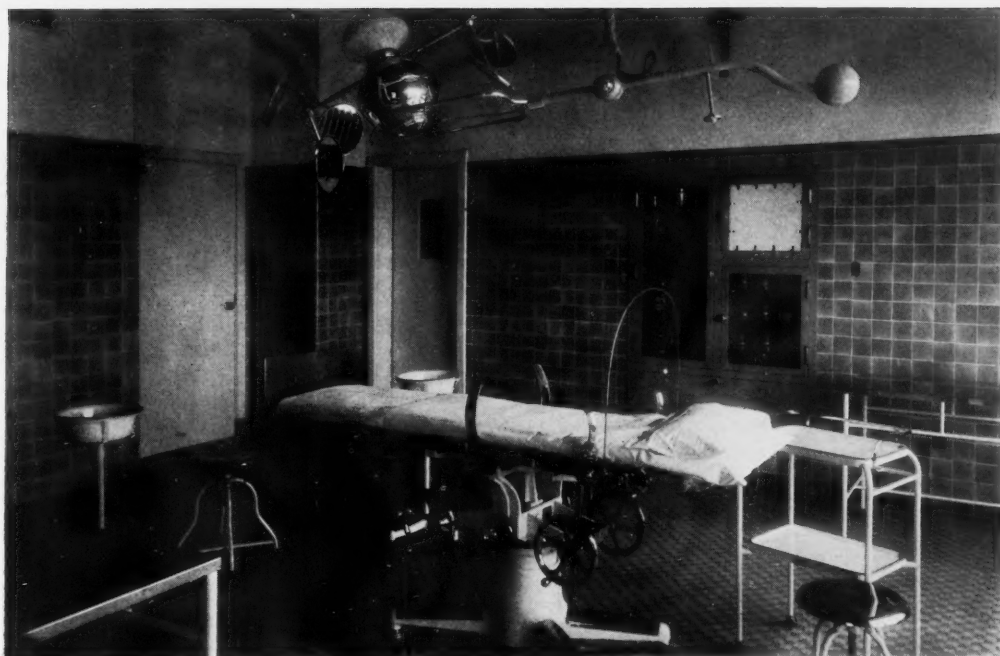
Chicago, Ill.
1200 N. Ashland Ave.

New Orleans, La.
ROBERT E. FELTON
Balter Bldg.

St. Louis, Mo.
KIEFER SALES
& ADV. SERVICE
1014 Locust St.

**A COMPLETE SERVICE
FOR THE WEST**
FELTON CHEMICAL CO.
INC.
515 So. Fairfax Ave.
Los Angeles, Calif.





The modern hospital operating room requires a high degree of cleanliness and sanitation.

The Hospital Market

A Study of the Consumption of Soaps, Detergents,
and Sanitary Products in American Hospitals

By FABER BIRREN

The Modern Hospital Publishing Company

CLEANLINESS has no more rigorous standards than in hospitals. Here in a field where asepsis is a first law, and where soaps, detergents and disinfectants are both liberally and scientifically utilized. The prevention of infection, the control of disease, the maintenance of sterility throughout the hospital,—all have required an intense study of cleaning materials, methods and technique. Hospitals are community health centers. Their ideals require them to exemplify the most advanced in sanitary practice.

Few have an adequate conception of the size of hospitals, the extent of their facilities and the widespread service they render. The market is divided into two groups,—hospitals and allied institutions. Hospitals in the United States number 7,659 and have a bed capacity of 1,039,648. These units consist of general hospitals for acutely ill patients, maternity hospitals, tuberculosis sanatoriums, mental hospitals, etc. Allied institutions number 2,051 and have 321,375 beds. These units consist of home and schools for the blind and deaf, homes for the aged, homes for children, etc., all having partial hospital facilities.

The average daily population of the field, patients and personnel, is 1,700,000. Last year 7,038,000 persons were admitted as resident patients in hospitals (about 6 per cent of our national population), and 9,519,000 more were served as out-patients. Approximately three-quarters of a million babies annually enter the United States by the institution route. Physicians connected with hospitals number 126,261 and dentists total 3,018. The field supports over 40,000 graduate nurses, and nearly 90,000 students are enrolled in hospital training schools.

Allied departments are numerous. The hospitals of the country have 1,800 schools of nursing, 4,300 laboratories, 4,700 x-ray departments. Social service departments are maintained by more than 1,000 hospitals as part of the equipment of the institution to render a more rounded community health service. And other facilities,—hospitals maintain pharmacies, laundries, kitchens, bakeries, physiotherapy departments, hotel accommodations for guests, office space for doctors and even, in some cases, space for gift and flower shops. There is perhaps no other field with such extensive service re-

quirements and such an unusual array of interrelated departments.

The hospitals of the United States represent a capital investment in excess of three billion dollars. They spend about \$656,000,000 each year for maintenance and one hundred and fifty millions for new construction and rehabilitation. They serve daily some six million meals.

Hospitals are efficiently organized. They represent a sizable and compact market. Progress here is more in terms of increase in the size of existing units than in terms of new units added to the field. Since 1925, for example, hospitals have increased 9 per cent in number, while the increase in their bed capacity has been 21 per cent.

As to the size of hospitals, here are some interesting facts. Seventy-two per cent of all hospitals have under 100 beds. They represent, however, only 19 per cent of the total bed capacity of the field. The larger hospitals, 100 beds and over, have 28 per cent of the units and 81 per cent of the beds. In a word, some 2,145 institutions control over four-fifths of all beds and consequently spend this proportion of the total hospital budget. Each of these average large institutions spends approximately \$566,000 each year.

THE need of hospitals for soaps, detergents and disinfectants is naturally high for two reasons, because of the size of the market itself, and because of the high standards of sanitation observed. How much do hospitals spend for soap and allied products, and what do they use? Following is a list copied from the purchasing records of a 475-bed hospital. The items included represent quantities purchased over one year. Trade names have been frankly included where mentioned in the inventory.

The various products indicate the diversity of requirements as well as the volume of demand. This hospital has about 5/100 of one per cent of all beds in the field, and for a very rough estimate of potential demands throughout the market, 2,000 may be used as a multiplier in any instance.

Requirements of a 475 Bed Hospital General and Housekeeping

Bon Ami	115 dozen
Lye	8 cases
Chloride of Lime	240 pounds
Kitchen Klenzer	875 pounds
Wyandotte White Ash	35 barrels
Roach Powder	144 pounds
Scouring Powder	12,031 pounds
Soap Powder	67,200 pounds
Shaving Cream	12 tubes
Soap for Rug Washing	2 drums
Toilet Soap	168 dozen
	178 cases
Flaked Ivory Soap	56 cases
Wool Soap	131 cases
Laundry Soap	262 cases

Laundry

Acid Acetic	8 carboys
Antiseptic Fluid	4,108 carboys
	386 gallons
Bleaching Fluid	465 gallons
Powdered Borax	4 barrels
Caustic Soda	30 drums
Silicate of Soda	85 gallons
Clenital Compound	2,000 pounds
Dynamite Soap Powder	1,839 pounds
Erusto Salts	100 pounds
Oxalic Acid	475 pounds
Ozonite	8,500 pounds
Soap Chips	20 barrels
Soap Powder	5 barrels
Soda Ash	11,400 pounds
Sour	100 pounds
Starch	6,180 pounds
Sulfuric Acid	1 carboy
Wonder O'Laundry Cleaner....	50 gallons

Paint Shop

Soap Powder	3 barrels
-------------------	-----------

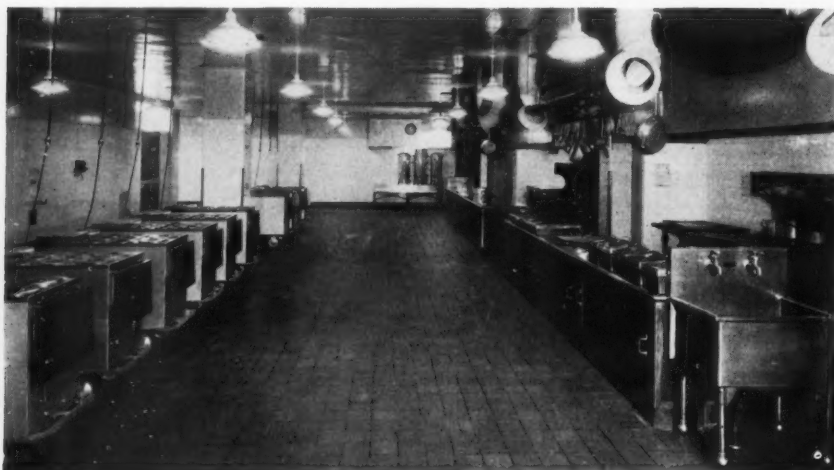
Engineering Department

Calcium Chloride	10 drums
------------------------	----------

Pharmacy and Surgery

Boric Acid	9 barrels
Cresol Compound	230 gallons
Green Soap	9 barrels
Toilet Soap	1,900 bars

THE average large hospital maintains, for its general plant, an extensive staff for cleaning, decorating, repairs, etc. Special equipment, floor scrubbing, waxing



The hospital kitchen is a large user of detergents on dishes, utensils, equipments, floors and walls. Sanitation in dishwashing receives unusual attention. The hospitals of the United States serve over 6,000,000 meals each day.

Babies, cribs, bed-linen, walls, floors to be kept clean and sanitary in the nursery of the modern hospital,—a complex problem calling for the extensive use of soaps and sanitary products. Three-quarters of a million babies are born in American hospitals annually.



and polishing machine, and mop trucks are employed in addition to the equipment found in the laundry and kitchen departments. Floors are cleaned and polished far more frequently than in other fields, as are walls and furnishings. In the clinical departments, the surgery, operating rooms, sterilizing rooms, maternity department, etc., utmost cleanliness is maintained always.

Hospitals make little use of wood floors. A recent study of 45 new projects reveals these preferences for flooring materials:

Terrazzo	72%
Tile	62%
Linoleum	51%
Rubber Tile	46%
Concrete	41%
Wood	20%
Marble	18%
Composition	18%
Other	10%

Nearly always, of course, two or more types of floor materials are specified.

Special uses for soaps and disinfectants are found throughout the institution. In some rooms and wards, all furnishings and utensils are wiped daily with an antiseptic solution. In surgery, special liquid soaps are of course used by the medical staff and attendants preceding operations. Special antiseptics and solutions are used for instruments, bandages, preservation of specimens, preparation of solutions, etc. Castile and other special soaps are used in the nursery. Special cleaners are used for chemical glassware, nickel and chromium finish equipment, specialized equipment such as irrigators, aspirators, etc. In the laboratory, the x-ray department, pharmacy, mortuary and autopsy rooms, in the utility rooms, floor diet kitchens, cleansers and disinfectants are generously employed.

Some institutions manufacture soap products and antiseptic from basic materials, but prepared products and trademarked brands are commonly found. Some manufacturers have made special studies of hospital

needs and have offered products to suit the particular requirements of the field.

HOW much do hospitals spend for soap and allied products? Extensive surveys reveal that the yearly cost averages \$12.50 per bed. Applying this to the 1,039,648 bed capacity of hospitals the annual figure would be \$12,995,600. At least another \$300,000 could be added for allied institutions, making a grand total of approximately \$13,300,000.

Thus the hospital represents an important market for the soap and sanitary product manufacturers. Because of the nature of its organization and the fact that it is founded upon service to the sick and therefore is responsive to quality and merit above all else, it has more than usual attraction to manufacturers selling products of merit. The average hospital buys a product primarily because it serves the best needs of modern medical and sanitary practice. It does not purchase for resale or to derive a profit. It knows how to analyze quality, and its scientific staff can pass intelligently upon the relative efficacy of chemical products.

There is a hospital in every neighborhood. It is always kept in operation, regardless of general economic conditions. It is an institution dedicated to the welfare of the nation. In its procedures, in the products it uses, the soaps it specifies, it logically is looked upon as exemplifying the highest standards. It is a "proving ground" of values and as such is considered by progressive industries as one of the most interesting and worthwhile of all fields.

—o—

The employment index of the soap industry, issued by the U. S. Dept. of Labor, stood at 103.1 in March, 1934, as compared with 98.0 in February and 81.6 in March of 1933. The payroll index reading was 88.4 for March, 1934, as compared with 83.5 in the previous month and 66.8 for March, 1933.

A

INDUSOIL

A

NEW FATTY ACID

A low-priced substitute for Commercial Red Oil. Never before manufactured in the United States.

In view of advancing commodity prices, why not standardize on a product less subject to market fluctuations?

(Raw material controlled by us)

Chemical and physical analyses and additional data together with sample furnished on request.

INDUSTRIAL CHEMICAL SALES CO., INC.

INDUSTRIAL CHEMICAL SALES CO., INC.
230 Park Ave., New York City

Please send me a oz. sample and chemical analysis of
INDUSOIL.

Name

Address

230 Park Ave.
NEW YORK CITY

205 W. Wacker Dr.
CHICAGO, ILL.

The Oil Soap Industry

By S. J. MILLER, Ch. E.

THE use of the term oil soap industry may seem a bit far-fetched. In reality, it is quite justified, I think, because of the very sharp differentiation that now exists between this particular field of soap-making and the wide, general field of fat saponification. Another designation often used is the potash soap industry but this is somewhat misleading because the principal oil soaps are by no means all straight potash soaps. Some of them, as a matter of fact, are not potash soaps at all, but are nevertheless correctly included in this general group, for reasons which will appear later. This article then will attempt to present a broad photograph of this phase of soap manufacture—a photograph detailed enough to bring out a very considerable mass of technical facts, but broad enough that matters of widespread common knowledge shall not obstruct the view of those items that are of value to the practical soap man.

Special articles on this subject have appeared in the journals from time to time, including one prepared some seven years ago by the present writer, but there has been no recent effort to bring the literature up to date by stressing the topics of current major importance, and eliminating processes and formulas which are now obsolete or nearly so. Nor has there been much said about the commercial side of the subject, especially as regards those methods and practices in which the oil soap field must necessarily differ widely from that of general soap manufacture.

What, then, is the oil soap industry? In the first place, it may be said to be the original, historic process of fat saponification for detergent uses, the parent of the present mammoth boiled soap industry, even though the child has now far outgrown the father. This does not mean, of course, that the oil soap processes of today smack at all of the goat tallow and beech ash era of the 12th century. Such were the ingredients, and such the date, of the first soaps about which we have any record beyond the mere use of the word. Obviously, such soaps were potash products, because potash is the principal alkali of all wood ashes, and it is exceedingly unlikely that any extensive routine of deglycerinization, settling, fitting and so on was used in those early days. Everything that went into the kettle as raw material came out as soap, and that is still true of nearly all oil soaps. During the 13th century, the manufacture of soap was started at Marseilles, the fatty base there being olive oil.

Now, in the 20th century, the amazing variety presented by the soap shelf of a modern grocery or drug store indicates the extent of progress of the main soap industry, while the high purity and the particularized

usefulness of modern oil soaps indicates the way in which this smaller group has followed its original bent, but with prompt adoption of every scientific advance really adapted to its use.

Specific examples will define oil soaps better than words could do. Here are a few of the leading types of products:

- Hard Amber Oil Soap
- Hard Opalescent Green Oil Soap
- Hard Olive Green Soap
- Soft Amber Oil Soap
- Jelly Soap
- Cocoa Base
- Liquid Toilet Soaps

Add to these the almost innumerable specialties—such as liquid scrubbing soaps, “waterless” soaps, dry cleaning soaps, cutting compounds and soluble pine oils—and you have a picture of the field of action of this group. Most of these products are saponified entirely or in large part with potash; a few contain soda; and a few are entirely soda soaps, but of such nature and method of manufacture as rightly to be included in this list. In a few special cases, part of the saponification is accomplished with lime. With few exceptions, however, they are not settled soaps. The glyceryl radical present in the fatty stock is allowed to remain, as glycerine, in the finished product, and any impurities that were present in the raw materials are present in the resulting soap. (It should be noted that nothing but the utmost shoddiness in the choice of raw materials can ever allow these impurities to mount to an objectionable point.) Finally, the products in general are such as lend themselves best to bulk sale to quantity users, rather than in small, household size packages to retail purchasers.

OF all the soaps tabulated above, none rivals in importance the hard amber oil soap, and its derivative, the hard opalescent green soap. The amber product is a translucent mass of the color implied by the name, often somewhat figged with stearate clusters, and usually entirely opaque and of a brownish yellow color in cold weather. In consistency it is about half way between a stick of butter fresh from the refrigerator and a block of art gum eraser, and the exposed surface is usually softened to sliminess by dehydration. The depth of this sliminess varies from a sixteenth to as much as a quarter of an inch, depending upon the temperature and the humidity of the air to which the soap has been exposed, and the duration of such exposure. Long continued exposure leads to a rehardening of this soft outer scum, when it has reached such a degree of dehydration

as to prevent further loss of moisture from the interior. In such cases, the outer crust as well as the soft layer just beneath it must be scraped away to show the real appearance of the soap.

Touched to the tongue, such a soap should have only a mild soapy and oily taste, with no trace of saltiness indicating over liberal use of unrefined fatty acids, and without the least alkaline bite. A piece of it dropped into a beaker of water should dissolve completely with no heating or stirring, without crumbling during solution, and without the formation of any trace of mucilaginous grey film around the dissolving chunk or at the bottom of the beaker. Crumbling or film formation during solution point strongly to the use of too high a percentage of soda, or to fatty raw materials too high in stearates and palmitates.

The hard opalescent green soap is an identical product, except that it has been rendered fluorescent green in color by the addition of a small amount of commercial fluoresceine (or uranine). The amount of dye used varies widely. As small an amount as 1/200 of 1 per cent by weight is adequate. With very light stock, an even smaller amount will do, although some soapmakers still use several times this amount, obtaining thereby a considerably darker hued soap and a more strongly tinted solution. During the past decade and a half the green product has steadily been supplanting the amber one, the reason of course being the readier saleability which the former enjoys as the result of its superior visual appeal. Some years ago, it enjoyed the additional advantage of distinctiveness, which now it has largely lost through the switching over of one maker after another from the amber to the green soap. Undoubtedly, too, many buyers have interpreted the old term "green soap," which originally stood for a translucent product of amber color, to mean a soap that is actually of a green shade, and thus, by their insistence, have unintentionally brought about the custom of dyeing this soap green.

THERE is an interesting story, and in all probability a true one, to the effect that fluoresceine tinted oil soaps were first introduced to the trade entirely by accident. It is said that one manufacturer who is now important in the industry was at that time a small jobber, buying his oil soaps from a grease concern which dabbled in soaps as a minor sideline. Fluoresceine was used by this grease maker in certain other products and once, inadvertently, his soap boiler made a batch of oil soap for the jobber in a kettle which was still contaminated with the green color from earlier runs of the other products. The soap, of course, came out with the characteristic fluorescent hue, to which the jobber strenuously objected. He was forced by rush of orders, however, to send out several barrels of it and did so, hoping that the difference would not be detected. To his pleased surprise, he found that the difference was not only detected, but actually applauded by the customer. Thereafter, for a considerable time, a pinch of fluoresceine in each batch of soap gave this jobber prime advertising

and merchandising capital, until eventually his competitors began to follow suit.

The actual manufacture of this soap is at the same time simple and complicated. It is simple in that only the normal equipment and materials of the oil soap plant are required; and complicated in that a very highly developed degree of soapmaking skill is required to obtain a satisfactory and uniform product, batch after batch. It is easy enough for the laboratory to say just what is wrong with a given batch after that batch has been drawn from the kettle and is being prepared for shipment, but it is far from easy for the laboratory to guide by any scientific means the actual finishing of such a batch in the kettle. More than anywhere else in the industry, the fine art of soapmaking survives in knowing just how to finish a batch of hard amber oil soap.

Hard amber oil soap on analysis will show that its raw materials are commonplace enough. An average percentage formula would run about as follows:

- 50% oleine type oil (see below)
- 3% cocoanut oil
- 16% 33° Be. potassium hydroxide solution
- 14% 33° Be. sodium hydroxide solution
- 17% water

Dye as mentioned (if fluorescence desired).

The "oleine type oil" in the formula includes any of the oils which are made up largely of the glycerides of oleic and linoleic acids. Suitable oils, accordingly, include corn oil, linseed oil, soya bean oil, sesame oil, sunflower seed oil, all of which are in common use, depending upon relative prices, as well as a large number of similarly constituted oils which are not now of commercial importance in this country.

Many people still speak of oil soaps as "linseed oil soaps," an for that reason that oil has been included in the list just given. It is not at all a desirable oil for this use, however. It saponifies readily enough, of course, to yield a soap which is attractive in every way at the moment, but the oxidation that comes with storage of the soap for any length of time produces an unpleasantly fishy odor which seriously reduces the saleability of the soap. In some few cases, soaps are deliberately made to have this odor, to satisfy the demands of a dwindling group of buyers who have come to associate this obnoxious odor with high quality in oil soaps. From the utilitarian point of view, of course, such soaps are not necessarily high quality any more than are, for example, certain whiskeys which still retain the old fashioned labels and packages of thirty years ago.

IT makes little difference in what order the above materials are run into the kettle. The writer has invariably saved manufacturing time by placing the alkalis and the water in the kettle first, and raising this mixture almost to boiling before the oils are added. The dye, properly dissolved, can be added whenever convenient. Fluoresceine displays complete indifference to harsh treatment; no amount of heat or alkalinity seems to affect it. Ordinarily, however, it is not added until

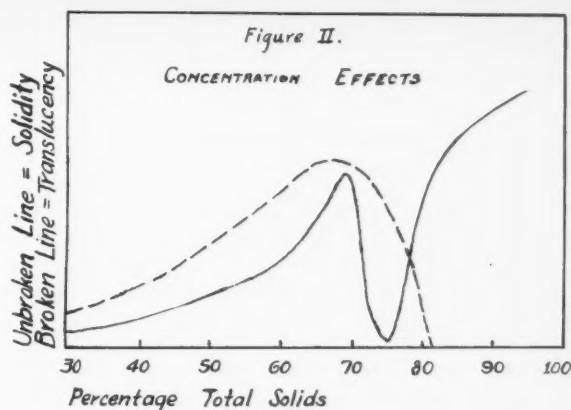
saponification is well under way and the mixture in the kettle has emulsified to a smooth and uniform consistency. Such emulsification is brought about by heat and agitation. The heat can be supplied most conveniently by means of an ample steam jacket about the kettle, although in some plants interior closed steam coils are used with satisfactory results. The task of making the ingredients "go together,"—that is, change from a mere oil and water mixture to an emulsion—is a tedious one, and one that requires careful attention lest a too sudden recation cause half the contents to boil over the kettle rim. Live steam injected directly into the mixture is a great aid in accomplishing this first step, although it is not an absolute necessity.

The remainder of the process can be divided into two principal steps; first, the attainment of the correct degree of alkalinity; second, the attainment of the correct degree of dehydration.

The first is accomplished by means of repeated tests while the batch is being boiled vigorously. When it can be assumed that the chemical union in the kettle is reasonably complete, which means after two hours of boiling for a five ton batch, the analyses to fix the degree of alkalinity can be started. Invariably, some slight additions of fatty acid or alkali will be necessary to correct for slight errors in stocking the kettle, for variations in Baume readings with temperature, and for the naturally occurring differences in the saponification numbers of different lots of oil. Neutral oil can be used to eliminate excess alkalinity, if desired, but fatty acid is preferable because of its speed and assured completeness of reaction. In all events, if the preliminary work has been carefully supervised and properly performed, the necessary corrections will be small. If batches of considerable size are to be made, it is obvious that Baume readings of the alkali solutions should be corrected for any material changes in prevailing temperature. These corrections can be obtained from any chemical handbook.

THE next, and final step is the attainment of the correct degree of dehydration. During the boiling operation just described, the soap will have lost moisture by evaporation until it has come to a higher actual soap content than is desired. By this it is not meant that the customer would be getting too much for his money if the soap were finished and shipped in this condition. Rather, he would be getting too little, because the higher soap content would be responsible for a slushiness of consistency that would render careful and economical use absolutely impossible. Water must therefore be added to bring the soap exactly to its eutectic point—in other words, to the point at which the soap-and-water emulsion displays its maximum firmness.

The tests to determine this, as well as those to determine proper alkalinity, call for much experience and skill on the part of the actual soapmaker. Those governing alkalinity are conducted colorimetrically, by means of phenolphthalein in an alcoholic solution of the



soap. To do this in the usual way in the laboratory, however, in the case of the dozens of such tests which must often be conducted on a single batch of soap, would entail a material personnel expense and an even greater expense due to lost time.

In most cases, therefore, a system of approximations has been worked out, which requires only that the soapmaker dissolve about 1 cc. (estimated) of the hot soap in 25 cc. of a very dilute alcoholic phenolphthalein solution, of such strength that correct alkalinity in the soap will produce a shade of color which matches a sealed standard provided by the laboratory. This arrangement enables the kettle man to bring the batch approximately to the desired point—often exactly to it—and the laboratory can then check the batch by means of a single determination. In a soap made in this way, of course, a slight alkalinity should be present at this stage as there is almost certain to remain a small amount of unsaponified saponifiable matter, which will completely eliminate any remaining free hydroxide during the first few days of storage. The amount thus permitted to be present in the hot soap when drawn from the kettle should not exceed 0.2 per cent, determined and calculated as potassium hydroxide.

THE tests for proper moisture content also require much skill. Different methods are used for this, but they all depend upon allowing a small sample of the soap to cool, and then observing its consistency, both to the touch and as shown by various semi-mechanical methods of investigation. An excess of water leads to a soft consistency, which softness is of a stringy or granular nature, depending upon the amount of the excess. A thin layer of the cooled sample, broken in two, will show coarse striations running at right angles to the principal plane of the sample, and the fracture will sometimes disclose small globules of unassimilated water. If on the other hand, there is a deficiency of water, the consistency will be soft, but definitely unguent and grease-like in nature, and the fracture of a broken slice will be lack-lustre in appearance and comparatively smooth of surface.

(Turn to Page 53)



A detergent with a unique patented pouring device which avoids any mutilation of the package in removing the contents,—Suds-A-Lot water softener and detergent. Color combination is green and white. Made by Suds-A-Lot Incorporated of Joliet, Ill. Designed by Miss Arsina Hauk, New York

New Products



Nylotis Baby Oil is packaged in a stock bottle which is individualized by label design, decorative top, and by wrapping in cellophane. The product was developed and is manufactured by the Nyal Company of Detroit. The bottle is a stock design of Owens-Illinois



Elkay's Dog Soap is a medicated soap of the tar-odor type designed primarily for washing dogs. However, the container also points out that it makes an effective shampoo and dandruff eradicator for humans. A new product of the United Drug Company, Boston.

Color combination is red and blue

ts

and Packages



Heetfield-Tillou, Inc.

Striking simplicity in container and label design characterizes this package for Watkins' Polish, manufactured by the J. R. Watkins Company of Winona, Minn. Closure is a metal cap by Phoenix



Borsum's Wonderful Polish, one of the oldest metal polishes on the market, makes its debut in a newly designed can under the auspices of its new owners, The Wilbert Product Company of New York. Can designed and manufactured by Metal Package Corporation



Jars of moulded plastic now offered as stock items by Arrow-Hart & Hegeman Company of Hartford, Conn. For shaving creams, face creams, or any paste product. Made of water-resistant Durez in two, three and four ounce sizes



Free Flowing GRASELLI TRI-SODIUM PHOSPHATE

As our process permits GRASELLI Tri-Sodium Phosphate to cure, it is FREE FLOWING.

Non-Sifting Packages. Shipped to you in barrels with paper liner—no loss either in transit or storage. Also comes in kegs and bags. Grades . . . fines, medium, coarse, flake and globular.

Let us figure on your T. S. P. requirements. If you are in a hurry, call up our nearest branch. Write for folder.

Let Us Also Quote You On

Silicate of Soda	Carbon Tetrachloride
Caustic Soda	Paradichlorobenzene
Soda Ash	Sodium Fluoride



THE GRASELLI CHEMICAL COMPANY

FOUNDED 1839 INCORPORATED CLEVELAND, OHIO

New York Office and Export Office: 350 Fifth Avenue

Albany	Birmingham	Boston	Charlotte	Chicago
Cincinnati	Detroit	Milwaukee	New Haven	New Orleans
Philadelphia	Pittsburgh	St. Louis	St. Paul	
SAN FRANCISCO—584 Mission St.		LOS ANGELES—2260 East 15th St.		

Represented in Canada by CANADIAN INDUSTRIES, Ltd.
Acids and General Chemicals Division, Montreal and Toronto



Write for Folder

SOAP CODE AUTHORITY MEETS

A meeting of the Code Authority of the Soap and Glycerine Manufacturing Industry is being held in New York on May 17 at the offices of the Association of American Soap and Glycerine Producers. This is the first meeting of the Code Authority since it met in Washington on March 7. At the current meeting, questions which have been submitted by the industry since the last meeting, are being taken up and interpretations will be issued. After these have been passed upon by the NRA in Washington, the complete interpretations will be published as official decisions of the Administration.

At the New York meeting, one of the matters to come up will be the selection of a date for the general soap industry meeting which has been postponed on two occasions before owing to uncertainties regarding certain features of the NRA program, particularly a further reduction in hours of labor in the soap industry. It is understood that the general meeting will be held in Chicago some time in June, the exact date to be announced as soon as it is selected. All soap makers will be notified by the Code Authority and invited to attend.

In regard to code enforcement where there seems to be a conflict in a company between two or more codes which seem to apply in a certain situation, it has been pointed out by Roscoe C. Edlund, executive secretary of the soap and glycerine code authority, that the best procedure on the part of the manufacturer is to write a joint letter explaining the case in detail to the code authorities of the two or more industries which are involved. He also points out that the NRA has no desire to work a hardship on a manufacturer as a result of code conflicts and that under some conditions a manufacturer may apply for exemption from codes which handicap him and which apply in only a minor way to his business.

Current advertising copy for "Lux" toilet soap warns that cosmetics are apt to injure the skin unless protective measures are regularly employed, pointing to the danger of acquiring "cosmetic skin" unless a suitable toilet soap is used. This copy, which has already appeared in hundreds of leading magazines and newspapers is being protested by leading cosmetic manufacturers who claim that it is a libel on their industry.

Andre Firmenich of M. Naef & Co., Geneva, arrived in New York aboard the *Bremen* on May 8 for a stay of six weeks. During his visit, he will make his headquarters with Ungerer & Co., New York, American representatives for Naef. He plans a business trip to numerous leading American cities where he will visit the trade. He will be accompanied by Rupert C. Watson of Ungerer & Co. on his trip through the United States.

Frey & Horgan, oil and fat brokers, New York, moved last month from 25 Beaver Street to 17 State Street. The new telephone numbers are WHitehall 4-2542-5.

COL. WILLIAM COOPER PROCTER DIES

Colonel William Cooper Procter, chairman of the board of Procter & Gamble Company, died in the Holmes Hospital, Cincinnati, May 2, at the age of seventy-one, after a short illness.



Col. Procter contracted a cold while on a recent trip to New York and treatments at a Philadelphia hospital failed to help him. When a touch of bronchial pneumonia developed he decided to return to Cincinnati at once for treatment. His condition improved at first, but he later suffered a relapse which proved fatal.

Col. Procter was born at Glendale, Ohio, in 1862, the son of William Alexander and Charlotte Elizabeth Jackson Procter, and the grandson of the founder of the Procter & Gamble firm. He received his early education in the schools of Glendale and Cincinnati and then attended Princeton University, from which he was graduated as a Bachelor of Science in 1883. His work in the Cincinnati plant of Procter & Gamble, of which firm his father was then president, began immediately afterward. After holding a number of positions, he was made general manager in 1890, and upon the death of his father he was elected president of the company in 1907. In 1930 he relinquished the presidency, becoming chairman of the board of directors.

During Col. Procter's connection with the company some of his earliest acts were to establish profit-sharing with the employes and to adopt other policies, including guaranteed employment. Under the profit-sharing plan, inaugurated in 1887, workers had an opportunity to acquire stock in the company. During 1930, the peak year for the distribution of profits, nearly \$1,000,000 was distributed among the workers as a dividend. Under the plan of guaranteed employment, persons working for Procter & Gamble were guaranteed at least forty-eight weeks' employment a year, and the company established an insurance fund to pay benefits in cases where the guaranteed amount of work could not be furnished.

Many other "industrial experiments" were carried out by Co. Procter. Among these was the Saturday half-holiday for industrial workers, which he was credited with having introduced into American factories. Other innovations were a pension-and-benefit plan and an employes-conference plan, which has been extended to the point where workers have representation on the company's board of directors and vote on the policies to be followed.

Col. Procter, whose military title dated from service as commander of the First Regiment of Infantry, Ohio National Guard, was widely interested in philanthropic undertakings. His benefactions included a \$2,500,000

gift to the Children's Hospital of Cincinnati, contributions toward the building of the Graduate School at Princeton University and many donations to civic and philanthropic associations. He was a member of the Council of National Defense in the World War years of 1917 and 1918, chairman of the War Chest campaign of Cincinnati in 1918 and a leader in the Liberty Loan and Red Cross drives of the war period.

Col. Procter married in January, 1889, Miss Jane Eliza Johnston of Glendale, who survives him.

T. M. SAYMAN SUED FOR \$200,000

T. M. Sayman, president of T. M. Sayman Products, St. Louis, well-known manufacturer of soaps and proprietary products, has been named defendant in a suit for \$200,000 damages filed by Bishop M. Crawford, instructor at the Hunters' Country Club. The suit asks for \$100,000 actual damages and \$100,000 punitive damages, alleging that on several occasions during the summer and fall of 1933 that Sayman applied vicious and defamatory epithets to Crawford, and made other insinuations which Crawford construed as defaming his character. The charges are denied by Mr. Sayman, who stated that he would fight the suit and defend himself to the limit. The suit was filed April 17 at St. Louis.

Louis Gampert, vice-president of Felton Chemical Co., has just returned to New York from an extended trip through the southwest. He reports increasing business for his company in this territory, and a generally optimistic feeling for the future, particularly in Texas. Albert Albek, manager of the western branch of Felton Chemical Company, located at 515 South Fairfax Ave., Los Angeles, met Mr. Gampert in El Paso.

OIL PRICES UP 25% PRIOR TO TAX

Prices for oils and fats in the American market had advanced twenty-five per cent by April, 1934, over April of a year ago, according to figures compiled by the Bureau of Raw Materials for American Vegetable Oils and Fats Industries. This advance took place during the year from April, 1933, to April, 1934, and was prior to the adoption of the excise tax on imported oils. For the fourth consecutive month, prices went up in April. The average price index number for 23 oils and fats was 73 for April, 1934, compared to 72.5 in March, and 58.2 in April, 1933. The price indexes for the various oils for March and April, 1934, are given in the following table:

	April 1934	March 1934
Castor oil	97.3	97.3
Corn oil	94.3	94.3
Cottonseed oil	77.4	76.0
Lard	43.5	58.0
Oleo oil	59.1	59.1
Peanut oil	68.2	65.0
Soybean oil	109.3	109.3
Chinawood oil	100.0	95.2
Coconut oil	38.8	38.8
Cod oil	89.5	87.1
Grease	53.5	53.2
Herring oil	41.2	41.2
Linseed oil	103.6	103.6
Menhaden oil	100.8	104.2
Olive oil	106.0	104.0
Olive oil foots	94.4	91.2
Palm oil	52.8	52.9
Palm kernel oil	44.0	46.5
Rapeseed oil	62.5	68.0
Sesame oil	74.1	74.1
Stearin, oleo	52.3	52.3
Tallow	50.6	48.1
Whale oil	103.4	103.4

Stocks of refined cottonseed oil on hand in United States as of March 31, 1934, totaled 838,547,096 lbs., as against 808,228,483 lbs. on the same date last year. Stocks of crude cottonseed oil were 146,569,028 lbs. on March 31, 1934, as against 161,534,905 lbs., March 31, 1933.



Four floors of office space in New York's famous "Radio City" comprise the new headquarters for the American Cyanamid & Chemical Corp. The new offices are located on the fifty-seventh to the sixty-first floors of 30 Rockefeller Plaza, New York, otherwise known as Rockefeller Center. In its previous offices, the company occupied twenty-eight floors. The new offices are com-



pletely air conditioned and sound-proofed, and equipped with the most modern office devices. Herewith are shown a view of one of the general offices, and also an executive office at the new headquarters. The Dow Chemical Co. is another leading American chemical manufacturer to establish offices recently in Rockefeller Center, its Eastern office now being located there.

CHICAGO TRADE NOTES

DAVID A. BENNETT, president of Albert Verley, Chicago, is back at his office following a speedy recovery from a recent appendicitis operation.

The April meeting of the Chicago Drug and Chemical Association on the 28th was very well attended. An interesting talk was given on the subject "Building Business Under the New Deal" by Harry Newman Tolles, president of the Sheldon School. At the recent inaugural party for new officers E. L. Drach, retiring president of the association, was presented with a gold watch and chain as a token of appreciation for his work.

The new \$600,000 plant of J. R. Watkins Co. in Montreal is nearing completion. It is expected that within a short time regular production schedules can be started to meet the demand for Watkins products in Canada. Dr. E. G. Thomssen, chief chemist, was a recent visitor at the Montreal plant.

Mrs. A. G. Schneider, wife of the well-known secretary of the Chicago Drug and Chemical Association, passed away April 12th.

The May 1st meeting of the Chicago Perfumery, Soap and Extract Association at the Hamilton Club was marked by very good attendance of members. The meeting was given over to a discussion of the latest developments and interpretations of the codes which affect the member companies.

The first tournament of the Golf Auxiliary of the Chicago Drug and Chemical Association and the Chicago Perfumery, Soap and Extract Association is being held May 15th at the Bunker Hill Country Club. A committee of twelve, made up of members of the two associations, has been appointed to handle all details for the coming season.

Allen B. Wrisley Co. has contracted with the Clearing industrial district for construction of an addition of 30,000 sq. ft. to their plant. The new unit will be 140 ft. of additional frontage on Oak Park Ave. by 240 ft. deep, and will be of the usual one-story, daylight, sprinklered construction with a depressed switchtrack served by the Belt railway. Negotiations were concluded between George Wrisley, vice-president of the Wrisley Company and H. P. Phelps, vice-president of the district. The new construction has been made necessary by a larger volume of business and is the second addition to their plant within less than a year. A new section of 15,000 sq. ft. was completed early last summer.

Hild Floor Machine Co., Chicago, is now selling a new product known as Hild Rug Shampoo. This new product, which is attractively packaged in cans and bottles, is designed to clean carpets without removing them from the floor.

LEVER SOAP TONNAGE GREATER

The vast scale of Lever Brothers' activities is illustrated by the figures given at the recent annual meeting at Port Sunlight by Chairman F. D'Arcy Cooper. The total tonnage was 4.2 per cent greater at 2,093,000 tons, representing a monetary turnover of £58,526,104 (\$292,630,520). Soap on which the firm's fortunes are mainly based, showed new records for sales of Lifebuoy, Rinso, Lux toilet soap, and Persil. Economic depression apparently did not affect soap consumption. The British increase was 2.6 per cent. The company's export trade in soap, which represents about 90 per cent of the total soap exports of the United Kingdom, again declined in tonnage, although larger profits were made.

Excluding West African business, the revenue from overseas companies fell by £334,000 to £2,488,000 (\$12,440,000), the decline being due to the effect of the fall in the dollar on the sterling income from America and Canada. The company, of course, has worldwide interests, and last year selling prices were reduced in all countries. The total tonnage was 85,000 larger. As regards the general results, the effect of the dollar depreciation was offset by savings in debenture interest and other items.

Viscount Leverhulme, seconding the resolution for the adoption of the annual report, declared that the company's progress was all the more remarkable when it was remembered that it was achieved in less than half a century. "We are still four years off the fiftieth anniversary of the founding of Port Sunlight," stated Lord Leverhulme, "but it happens that this year we are able to celebrate the jubilee of a very interesting event, my father's registration of the trade-mark 'Sunlight,' an event which foreshadowed all that was to follow, and it is worth recording on this occasion that our original product, 'Sunlight Soap,' on which the Lever fortunes were based, still occupies the leading position among the many soaps we manufacture here."

The United States is making rapid progress toward independence from foreign sources for synthetic aromatic chemicals, according to C. C. Concannon, chief of the chemical division of the U. S. Bureau of Foreign and Domestic Commerce. The downward trend in imports of perfume materials of coal tar origin, apparent in 1933, is continuing in 1934. During the first three months of this year imports totalled only 6,545 lbs., valued at \$13,383, compared with 12,243 lbs., valued at \$18,247, for the same period of 1933 and 18,048 lbs., valued at \$41,220, for the first quarter of 1932, Mr. Concannon stated.

SOAP presents a *perfuming problem* of a special character. To handle it successfully requires intimate knowledge of soap manufacturing and, above all, experience with soap perfumes.

We have done a considerable amount of work along those lines, and offer several series of soap perfumes of *tried worth*.

Send for *smelling samples*.

Almond	Lemon
Almond—Rose	Lilac
Almond—Cocoa	Lily
Antiseptic Odor	Mint
<i>Bouquets of great variety</i>	Narcissus
Carnation	Orange
Cedar	Oriental
Citrella	Patchouly
Cologne	Pine
Fougere	Pineapple
Gardenia	Rose
Geranium	Sandalwood
Girella	Sweet Pea
Jasmin	Verbena
Lavender	Violet

Also many odors for shampoo and liquid soap

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
438 West 48th St., Los Angeles
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

PERSONAL AND IMPERSONAL

Lever Brothers Co. is at present conducting a nationwide contest among its salesmen which will close June 30. A total of \$5,000 in prizes will be distributed among the "Lux" toilet soap salesmen who accomplish the most outstanding sales and merchandising jobs in their territories. The contest is being conducted in connection with the tenth anniversary of the introduction of "Lux" toilet soap which is being celebrated this year.

Edward A. Gerlach, Sr., president of E. A. Gerlach Co., Philadelphia, soaps and cleaning products, died recently of apoplexy. The business will be carried on by his two sons, Richard Gerlach, the new president of the company, and E. A. Gerlach, Jr., vice-president.

Cecil Smith, president of Yardley & Co., New York, sailed for England on the S. S. *Mauretania*, April 20, on his annual business trip. He expects to return late in May in order to be on hand for the annual convention of the Associated Manufacturers of Toilet Articles, of which group he is president.

Mennen Co., Newark, N. J., is introducing its new double-edge razor blade by packing one blade and a circular with packages of "Mennen" shaving cream. Orders will be filled direct by the company at a price of 25c for five blades.

Herpicide Co., New York, is introducing a new anti-septic shampoo with an advertising campaign in the *American Weekly*. Readers may secure a sample of the product by returning a coupon together with the top of a "Herpicide" tonic box.

George A. Sellmer, formerly office manager at the Milwaukee plant of Colgate-Palmolive-Peet Co., has been made superintendent following the transfer of Earl J. Reddert to the company's main office at Jersey City, N. J.

Southern Chemical Corp. has been chartered in Delaware to manufacture a varied line of chemicals, including caustic soda at Corpus Christi, Texas. The plant is now under construction and it is expected that it will be in operation this Fall. Officers of the company, which is jointly owned by American Cyanamid Co. and Pittsburgh Plate Glass Co., are as follows: Chairman, W. B. Bell, R. C. Gaugler, Treasurer, H. L. Derby, Presi-

dent, H. A. Galt, Vice-President, W. P. Sturtevant, Secretary. The plant will have its own private dock for ocean-going vessels to facilitate handling export and coastwise business.

Mac's Soap Co., Torrence Road, Columbus, Ohio, maker of "Mac's" soap, has been taken over by the United Loan and Adjustment Co., 16 East Broad St., Columbus. The new owner will market the products of the company under the name of "Po-Po" soap. The equipment has been sold and manufacturing arrangements made with the De-Vore Manufacturing Co., South 4th St., Columbus. Robert B. Davis is president of the United Loan and Adjustment Co.

Willard M. Maxim, founder of the Maxim Soap Co., New York, died recently of a heart attack at the age of seventy-one. The business, which has been in operation since 1896, will be continued by his son, Willard Brown Maxim.

Mace Chemical & Supply Co., soaps and allied chemical products, has opened offices and warehouses at 311 West Third Street, Davenport, Iowa. R. E. Boege is manager with W. H. Dixon, assisting. The firm will feature over 32 soap and allied products in the janitor, sanitary products and general cleaning lines.

Iowa Soap Company, Burlington, Iowa, reports the establishment of a distribution office in the Riteway Motor Service Building, under the supervision of L. Grotewohl.

M. Werk Co., Cincinnati, has leased a large storeroom in the Burdell building, 3rd and Gay Streets, Columbus, Ohio.

Wilson & Co., Chicago, have purchased all physical assets of Brennan Packing Co., Chicago, at a reported price of \$1,500,000.

Bristol-Myers Co. reports consolidated net income, after all charges, for the three months ended March 31, 1934, of \$669,213, equivalent to 95 cents per share on the 700,280 shares of \$5 par value common stock. For the same period last year comparable earnings amounted to \$598,722, or 85 cents per share on the same number

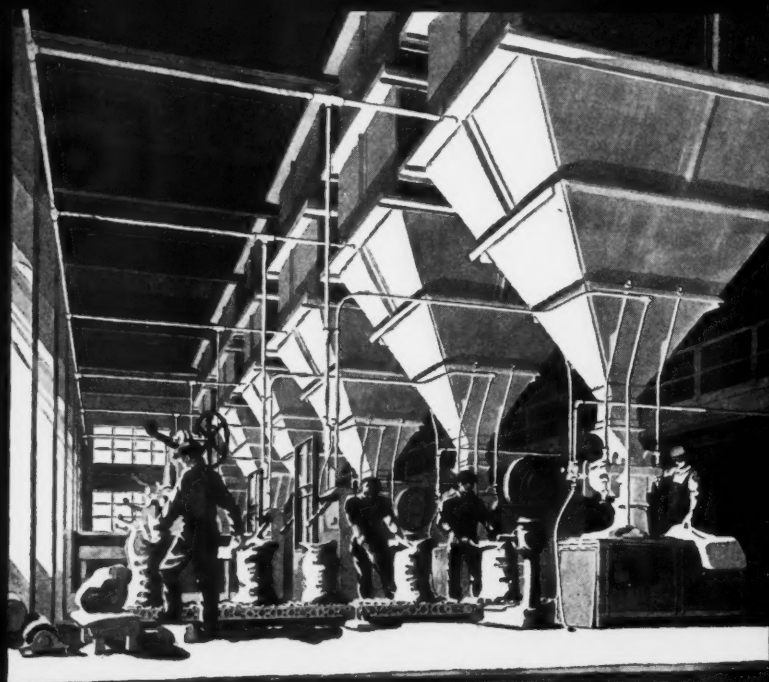
SPEAKING OF *Alkalis* . . .

● As large distributors of high quality Alkalis, we are always able to meet your requirements promptly. Our many warehouses, located at important shipping points throughout

the country, carry complete stocks. And any of our 5 district offices listed below will be glad to furnish quotations and to be of any further service to you.

SAL SODA
SODA ASH
CAUSTIC SODA
CAUSTIC POTASH
CARBONATE OF POTASH

A drawing made at one of our plants by D. Douglass



AMERICAN CYANAMID & CHEMICAL CORPORATION



30 ROCKEFELLER PLAZA

NEW YORK, N. Y.

New England District, Office: 89 Broad Street,
Boston, Mass.

Chicago District, Office: 20 No. Wacker Drive,
Chicago, Ill.

Southern District, Office: 301 East 7th St.,
Charlotte, N. C.

Cleveland District, Office: 1535 Standard Bank Bldg.,
Cleveland, Ohio

Philadelphia District, Office: 620 So. Delaware Avenue,
Philadelphia, Pa.

of shares. Directors have declared the regular quarterly dividend of 50 cents per share on the common stock and an extra dividend of 10 cents a share, both payable June 1 to stockholders of record May 10.

E. G. Giles has been appointed divisional manager by Armour Soap Works, Chicago, for Northern California and Nevada with headquarters in San Francisco. Mr. Giles was formerly district sales manager in San Francisco.

The John Wiley Jones Co., LeRoy, N. Y., will build a plant in Long Island City, N. Y., for the manufacture of water softeners and cleansers.

"Sweetheart Flakes" are now being sold in a twenty-one ounce size package by the Manhattan Soap Co., New York.

The annual stockholders' meeting of Coty, Inc., scheduled for April 17, was postponed until May 14 because of lack of a quorum.

Fitzpatrick Bros., Chicago, manufacturers of "Kitchen Klenzer" and "Automatic" soap flakes, have placed their advertising account with Neisser-Meyerhoff, Inc., Chicago.

Samuel Lenher, E. I. du Pont de Nemours & Co., addressed the American Institute of the City of New York last month on the topic, "Soapless Soaps."

Cook Swan Co. and Werner G. Smith Co., formerly at 122 East 42nd St., New York, have moved their offices to the Woolworth building, 233 Broadway.

Textile Chemical Products Co. has expanded its "Texchem" brand of materials to include the following: neutral olive flakes, olive bars, coco white flakes, palm flakes, tallow flakes, and two scrubbing soaps. Of the latter, one is a high-alkali soap powder for the removal of grease and oil, and the other a volcanic ash product for scouring wood floors. In addition, the company has developed a new line of throwing sizes and emulsions.

The Western Company is introducing a new "Double-Quick" version of "Dr. West's" tooth paste. Studies made by the company showed that the average tooth paste user spends only about thirty seconds on tooth washing, making a quick-acting paste necessary. The new product will be featured in magazine advertising and radio broadcast work.

The newly adopted cosmetic code was discussed at the April meeting of the Michigan Cosmetic and Extract Association held at the Downtown Club in Detroit. Uniform trade practices came in for discussion also. The

entertainment feature of the meeting was contributed by J. L. Zwickey who drew crayon sketches illustrating the *Legend of Sleepy Hollow*. The next meeting will be a golf tournament. Ray Vicary, Mark W. Allen Co., was appointed golf chairman, to assist the entertainment committee.

Bon-Ami Co. and subsidiaries earned net profit of \$226,518 during the first quarter of 1934, comparing with \$231,068 in the corresponding quarter of 1933.

Sidney J. Weinberg, William F. Terry and J. H. McGloon were elected directors of McKesson & Robbins at the annual meeting held April 18. All officers were re-elected.

E. M. Sergeant Co., New York, importers of caustic jotash, olive oil foots, etc., and dealers in a wide variety of chemicals has changed its name to E. M. Sergeant Pulp & Chemical Co., Inc.

The New York Produce Exchange has issued rules to govern transactions in bulk vegetable oils. Copies of the proposed regulations may be obtained by those interested upon application to the secretary of the New York Produce Exchange, New York.

Boots Pure Drug Co., Ltd., Beeston, Nottingham, England, has put into effect a five-day week for its 5,000 employees during the five summer months. If the scheme works out satisfactorily it may be continued on a year-round basis.

Samuel Weiss, secretary of the retail drug code authority for New York, spoke at the May 10th meeting of the drug, chemical and allied trades section of the New York Board of Trade. His topic was "The Retail Drug Code."

McKesson & Robbins, Inc., reports net sales of \$32,888,718 for the first three months of 1934, as against \$23,991,221 for the first quarter of 1933, or an increase of 37%.

San Arco Maintenance Products, Inc., 215 4th Ave., N. Y., has been organized to manufacture and sell a complete line of soaps and sanitary specialties.

Dr. F. J. Cullen recently resigned as Chief of Drug Control in the Food and Drug Administration, U. S. Dept. of Agriculture. Dr. P. W. Spickert, medical officer, has been appointed to act as chief temporarily until the vacated post is filled in accordance with civil service procedure. Dr. Virgil S. McDaniel has also resigned as medical officer of the administration.

Flexibility



The J. R. Watkins Packages vary in weight from 1½ oz. to 4 lbs. The entire group is swiftly and accurately filled on the S & S Universal Filling Machine.

Stokes & Smith Engineers will gladly co-operate in solving your packaging problem. Write for information.

STOKES & SMITH CO

PACKAGING MACHINERY PAPER BOX MACHINERY

4915 Summerdale Ave., Philadelphia, U. S. A.

British Office: 23, Goswell Road, London, E. C. 1

RECORD OF TRADE-MARKS

The following trade-marks were published in the April issue of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

TRADE MARKS FILED

FLY-A-WAY CLEANER—This in solid letters with sketch of woman in kitchen, describing cleaning fluid. Filed by Mrs. K. Caram, Ferndale, Mich., Dec. 29, 1933. Claims use since July 25, 1933.

JALMA—This in solid letters describing soap compounds. Filed by Mistral Co., Lexington, Mass., Feb. 16, 1934. Claims use since Nov. 15, 1933.

S-D—This in solid letters describing insecticide. Filed by S-D Insecticide Co., Newark, Jan. 26, 1934. Claims use since November, 1933.

ROTO-DUST—This in solid letters describing insecticides. Filed by Sherwin-Williams Co., Cleveland, Jan. 26, 1934. Claims use since Jan. 16, 1934.

BOTLWASH—This in solid letters against background showing bottle, describing cleaning composition. Filed by Paper Makers Chem. Corp., Wilmington, Feb. 3, 1934. Claims use since Dec. 27, 1933.

CLEANZ-BRITE—This in outline letters describing cleaning powder. Filed by Paper Makers Chem. Corp., Wilmington, Feb. 3, 1934. Claims use since Jan. 8, 1934.

DISHINE—This in solid letters against background of stack of dishes, describing cleaning compound. Filed by Paper Makers Chem. Corp., Wilmington, Feb. 3, 1934. Claims use since May 6, 1933.

SURG-O-DENT—This in solid letters describing dentifrice. Filed by Clifford L. Youngstrom, Litchfield, Minn., Jan. 22, 1934. Claims use since Nov. 1, 1933.

NONPO—This in solid letters describing insecticide. Filed by Thorocide Co., St. Louis, Feb. 6, 1934. Claims use since Dec. 11, 1933.

REX—This in solid letters describing insecticides. Filed by Rex Research Corp., Toledo, Feb. 20, 1934. Claims use since Jan. 20, 1934.

SCENTO—This in solid letters describing insecticides and deodorants. Filed by Fin-Wood Laboratories, Washington Court House, Ohio, Feb. 21, 1934. Claims use since Jan. 10, 1934.

VIPA—This in solid letters describing insecticides. Filed by Derris, Inc., New York, Feb. 28, 1934. Claims use since Jan. 10, 1934.

SANITOX—This in solid letters describing insecticides. Filed by Derris, Inc., New York, Feb. 28, 1934. Claims use since Jan. 12, 1934.

IVORY—This in solid letters describing shaving cream. Filed by Procter & Gamble Co., Cincinnati, Mar. 1, 1934. Claims use since Aug. 19, 1933.

"GUARD-U"—This in solid letters with silhouette of man with gun, describing germicides. Filed by Consolidated Guardian Chemical Co., Phoenix, Ariz., May 17, 1933. Claims use since Apr. 27, 1933.

OXENE—This in solid letters describing water softeners. Filed by Oxene Products Co., Dayton, Ohio, Feb. 17, 1934. Claims use since Feb. 3, 1934.

ZIRCOL—This in solid letters describing water softener. Filed by Oxene Products Co., Dayton, Ohio, Feb. 17, 1934. Claims use since Feb. 8, 1934.

EMOLICAINE—This in solid letters describing antiseptics. Filed by Joseph H. Glendening, Inc., Detroit, Feb. 26, 1934. Claims use since Apr. 1, 1930.

SPUD—This in solid letters describing shaving cream. Filed by Kennedy Products Co., Kokomo, Ind., Nov. 7, 1933. Claims use since Oct. 5, 1933.

BUBBLES—This in outlined letters describing granulated soap. Filed by Newell Gutrad Co., San Francisco, Nov. 8, 1933. Claims use since Oct. 23, 1933.

SHU-MILK—This on reverse plate on carton describing shoe polishes. Filed by Shu-Milk Products Corp., Orange, N. J., Mar. 6, 1934. Claims use since Jan. 1, 1934.

C E B—These letters on reverse plate describing polish. Filed by Ceb Manufacturing Corp., Jacksonville, Fla., Dec. 27, 1933. Claims use since Nov. 24, 1933.

Masson's Dozol—This in solid letters describing floor polish. Filed by Masson's Dozol Products, Glendale, L. I., N. Y., Mar. 3, 1934. Claims use since January, 1934.

TRADE MARKS GRANTED

311,655. Germicides and Antiseptics. Frederick Stearns & Co., Detroit. Filed October 30, 1933. Serial No. 343,047. Published January 23, 1934. Class 6.

311,679. Tooth Paste. Scientific Laboratories, Inc., Tampa. Filed October 27, 1933. Serial No. 342,990. Published January 23, 1934. Class 6.

311,701. Dentifrice Hyral Co., Fort Worth, Tex. Filed November 13, 1933. Serial No. 343,612. Published January 23, 1934. Class 6.

311,717. Floor Cleaners. Frank Bownes, Chelsea,

Mass. Filed November 17, 1933. Serial No. 343,764. Published January 23, 1934. Class 4.

311,761. Soaps. William L. Schultz, New York. Filed December 1, 1933. Serial No. 344,358. Published January 23, 1934. Class 4.

311,772. Insecticides and Deodorants. Purepac Corp., New York. Filed November 24, 1933. Serial No. 344,106. Published January 23, 1934. Class 6.

311,774. Toilet Soap. Bourjois, Inc., New York. Filed November 24, 1933. Serial No. 344,082. Published January 23, 1934. Class 4.

311,785. Insecticide. Golden Chemical Co., New York. Filed November 25, 1933. Serial No. 344,160. Published January 23, 1934. Class 6.

311,788. Insecticide and Fumigant. Liquid Carbonic Corp., Chicago. Filed November 27, 1933. Serial No. 344,196. Published January 23, 1934. Class 6.

311,798. Floor Wax. Standard Oil Company of New Jersey, Wilmington. Filed July 11, 1933. Serial No. 339,645. Published August 29, 1933. Class 16.

311,803. Detergent for Washing Textiles. Duratone, Inc., Cincinnati. Filed August 25, 1933. Serial No. 341,017. Published January 23, 1934. Class 4.

311,981. Insecticide. Skelly Oil Co., Tulsa, Okla. Filed December 12, 1933. Serial No. 344,871. Published January 30, 1934. Class 6.

312,070. Automobile Polish. Drexell Products Corp., Brooklyn. Filed December 11, 1933. Serial No. 344,770. Published February 13, 1934. Class 16.

312,074. Insect Spray. Robert C. White Co., Philadelphia. Filed December 9, 1933. Serial No. 344,739. Published February 6, 1934. Class 6.

312,086. Liquid Hymolal Shampoo. Procter & Gamble Co., Cincinnati. Filed December 1, 1933. Serial No. 344,356. Published February 6, 1934. Class 6.

312,092. Soap. W. T. Grant Co., New York. Filed December 1, 1933. Serial No. 344,320. Published February 6, 1934. Class 4.

312,101. Shaving Soap and Turtle Oil Soap. Hollywood Marvel Products Co., Los Angeles. Filed October 23, 1933. Serial No. 342,807. Published February 6, 1934. Class 4.

312,162. Laundry Tablets. Jewel Tea Co., Barrington Ill. Filed April 3, 1933. Serial No. 336,387. Published February 6, 1934. Class 6.

312,176. Metal Polish, Cleaning Compounds, Oil Soap, Auto Soap, Washing Compound, Liquid Soap, and Soap for General Use. R. M. Hollingshead Co., Camden, N. J. Filed November 21, 1932. Serial No. 332,389. Published February 6, 1934. Class 4.

312,271. Device for Cleansing Telephone Mouthpieces. Low Chemical Co., New York. Filed December 29, 1933. Serial No. 345,472. Published February 20, 1934. Class 4.

312,278. Preparation for Exterminating White Ants. Pacific Mercantile Co., Honolulu, Hawaii. Filed October 11, 1933. Serial No. 342,378. Published February 13, 1934. Class 6.

312,435. Cold Cream Soap. Drexel Products Corp.,

Brooklyn. Filed December 11, 1933. Serial No. 344,768. Published February 13, 1934. Class 4.

MAGNUS HEADS TRADE MEMBER DRIVE

P. C. Magnus, president of Magnus, Mabey & Reynard, Inc., New York, and also president of the New York Board of Trade, is actively heading the drive of the New York Board to double its present membership. Taking part with him are many prominent characters in the New York chemical, drug, soap and allied trades. A recent communication received from Mr. Magnus on this subject follows:

Editor, Soap:

You will be interested to know that the New York Board of Trade is in the midst of an intensive campaign effort to double its present membership.

With the up-turn of business, many men who were forced to relinquish memberships in various organizations are now in a position to assume their civic obligations and are willing to do so. They should be interested to join the organization whose program will best serve their business interests and the public welfare of the community.

For the past forty years the best interests of the Drug, Chemical and Allied Trades Group have been ably represented before legislative committees and, because of the power and influence the New York Board of Trade enjoys, good legislations in the interest of this Trades Group, has always been obtained.

Through its constructive, progressive or defensive measures to advance the worthy interests of New York, the Board has drawn into its membership substantial representatives of the commercial, financial, professional and industrial interests of the city and state. The Board's Roster is a distinguished one.

Because of its careful and thorough study of significant problems of finance and industry and its sound, intelligent recommendations in its reports, the New York Board of Trade is a recognized authority on business problems and its opinions are earnestly requested by legislative committees both at Albany and Washington.

The New York Board of Trade has a challenging program for recovery, and offers this opportunity to share in an effort to advance the welfare of the community in which we live and conduct our business.

When you are called upon by a member of the Board, I bespeak your favorable cooperation.

PERCY C. MAGNUS,
President, N. Y. Board of Trade.



New Patents

Conducted by
Lancaster, Allwine & Rommel

Registered Attorneys
PATENT AND TRADE-MARK CAUSES
815 15th St., N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 1,951,511. Process of Making Soap, Patented March 20, 1934, by Martin Hill Ittner, Jersey City, N. J. The process of purifying soap made from oxygen-containing organic bodies derived from the oxidation of petroleum and characterized by a content of free or combined monocarboxylic groups which consists in blowing a current of steam into the soap while contained in a closed vessel at a temperature in excess of 250 degrees C., removing the vapors from the vessel, rapidly enough to permit the soap to remain anhydrous even though in the presence of steam, and condensing and recovering the vapors, thereby effecting a removal of alcoholic hydroxyl from the oxygen-containing organic bodies and effecting a separation of unsaponifiable, volatile impurities without deleteriously affecting the soap, substantially as described.

No. 1,951,696. Alkali Metal Salts of Fatty Acids, Patented March 20, 1934, by Max Hofszasz, Mannheim-Neustheim, Germany, assignor to Shell Development Company, San Francisco, Calif. A process for the manufacture of alkali metal salts of fatty acids from olefines, which consists in subjecting olefines to elevated temperatures and pressures in the presence of alkaline reacting compounds of alkali metals and water.

No. 1,952,008. Detergent and Wetting Agent, Patented March 20, 1934, by Herman Alexander Bruson, Philadelphia, Pa., assignor to The Resinous Products & Chemical Company, Philadelphia, Pa. A soap-like compound, soluble in dilute acids, the compound being a condensation product of formaldehyde, a strongly basic secondary amine of the general formula $R-NH-R'$ where R and R' are an alkyl group or jointly a polymethylene ring having a total carbon atom content less than seven, and a primary amide of a carboxylic acid which is one of the group consisting of aliphatic, hydroaromatic, and naphthenic acids having more than eight carbon atoms.

No. 1,949,722. Insecticide, Patented March 6, 1934, by Hugh Knight, Upland, Calif., assignor by direct and mesne assignments, to Emulsoids, Inc., New York, N. Y. As an insecticide for application to plant foliage, a mineral oil having a viscosity of about 30 to 50 seconds

Saybolt at 100° F. compounded with an oil soluble ester of a fatty acid derived from an organic oil, the ester being proportioned to prevent a rapid vaporization of the oil and to permit the oil to have a lethal effect on insects before evaporating from the plant foliage.

No. 1,949,798. Insecticidal Composition, Patented March 6, 1934, by Hugh Knight, Claremont, Calif., and Lloyd C. Swallen and William J. Bannister, Terre Haute, Ind., assignors to Emulsoids, Inc., New York, N. Y. As an insecticide composition, an insecticidal mineral oil in combination with a polyhydroxy alcohol partially esterified with a high molecular weight fatty acid, the amount of the ester being upwards of 0.1 per cent but less than 2.0 per cent based on the mineral oil.

No. 1,949,799. Insecticidal Oil Spray, Patented March 6, 1934, by Hugh Knight, Claremont, Calif., assignor to Standard Oil Company, Chicago, Ill. An anti-parasitic spray for application to sensitive foliage which comprises a mineral oil compounded with about two or ten per cent of a solute of the class which consists of oil-soluble hydroxy esters of high molecular weight organic acids with polyhydric alcohols.

No. 1,949,921. Cleaning Metals, Patented March 6, 1934, by William K. Schweitzer, East Cleveland, Ohio, assignor to The Grasselli Chemical Company, Cleveland, Ohio. A metal cleaning and rust preventing solution comprising aqueous phosphoric acid, isopropyl-ether and a water soluble common solvent for phosphoric acid and the ether.

—o—
A cessation in Japanese shipments of brown camphor oil to the American market is reported in the April number of the *Givaudanian*, house organ of Givaudan-Delawanna, Inc., New York. Prices of oil camphor, sassafrassy, oil sassafrassy artificial and safrol have gone up sharply as a result.

—o—
A public hearing was held in Washington last month on the code of fair competition for the sulphonated oils industry. The code was presented by George Link, Jr., New York attorney, and endorsed by the Sulphonated Oils Manufacturers Association.

—o—
A. Doolittle, president of Compagnie Parento Inc., Croton-on-Hudson, N. Y., visited the Canadian affiliate, Campagnie Parento of Canada, Toronto, during the past month. Mr. Doolittle called on the trade in company with E. C. Barton, the manager at Toronto. Compagnie Parento of Canada has just taken new and larger space at the same address, 73 Adelaide St., West, Toronto, where better facilities are available.

—o—
Louis Descollonges, Descollonges Freres, Paris, France, arrived in New York on the *Ile de France* last month for a two months' trip which will take him to the Pacific Coast, Cuba, Mexico and Canada. Descollonges Freres are represented in United States by Benj. French, Inc., New York.

Bulk Polishes

Specially Formulated for All Purposes

In a complete line of polishes for the jobbing trade we feature our liquid metal polish—absolutely non-separating. Jobbers everywhere are building repeat business with this new product. A sample will tell you why. Other bulk polishes include paste polishes for silver, emulsion type polishes for furniture, automobiles and glass, etc. What are your needs?

Other Specialties for Jobbers Include

SOAP BASE

Six Point Soap Base—made from highest grade materials, high soap content, readily soluble, neutral, maximum lather and variety of shades and odors.

DISINFECTANTS

Both soluble and emulsion type coal tar disinfectants with coefficients of from 2 to 50. We also supply high quality pine oil disinfectants.

FERGUSSON LABORATORIES

24 OREGON AVENUE
PHILADELPHIA, PA.



Div. of Alex C. Fergusson Co.
Established 1855

Our Products Guaranteed to Test and Quality

P O L I S H E S

Made to make money for you

For

GLASS
MIRRORS
ALUMINUM
CHROME

SILVER
NICKEL

COPPER
BRASS
TILE
ENAMEL

In liquid, paste or BASE form

METAL POLISH BASE enables the small manufacturer to produce a uniform high quality product for less than it costs him to manufacture his own.

No acids or other harmful materials used. Non-settling and non-inflammable.

Send for prices, samples, etc.

NEW YORK SOAP CORPORATION

294 PEARL STREET

NEW YORK, N. Y.

Other Quality Products

Liquid Toilet Soap
Vegetable Oil Soap
Liquid Floor Cleanser

Liquid Shampoo
Shampoo Base
Pine Deodorant

Liquid Soap Base
Shaving Cream
Coal Tar Deodorant

CONTRACTS AWARDED

Colgate-Palmolive-Peet Co., Chicago, has been awarded a contract for 50,100 lbs. laundry soap for the U. S. Army Quartermaster at Chicago at a price of 2.916c. Samuel M. Sher, Chicago Heights, Ill., awarded 37,020 lbs. at 2.674c. John Sexton & Co., Chicago, awarded 3,500 cakes grit soap at 2.24c and 900 cakes at 2.81c.

Clark-Wilcox Co., Boston, has been awarded a contract for 400 lbs. cleaning compound for the Boston U. S. Army Quartermaster at a price of \$52.

Robbins Company has been awarded a contract for 36,000 cakes of stove polish for delivery to the U. S. Army Quartermaster, Brooklyn, at a price of 3.95c.

Samuel M. Sher, Chicago Heights, Ill., has been awarded a contract for 121,140 lbs. laundry soap for the Chicago U. S. Army Quartermaster at a price of 2.644c. Day & Frick, Philadelphia, awarded 2,600 cakes grit soap at 2.55c.

Bids were entered on 80 lbs. thallium sulfate for the U. S. Department of the Interior, Washington, in a recent opening, as follows: Braun-Knecht-Heimann Co., San Francisco, \$6.25 lb.; Foote Mineral Co., Philadelphia, \$5.19.

"Pine needle extract," sold as pine tablets for the bath, or incorporated in toilet soap, is reported as becoming increasingly popular. The implication is the beneficial effect of the wholesome, open-air pine fragrance, although most of the products are synthetic. A European brand of pine bath tablets incorporates real pine needles in an otherwise synthetic product. The tablets are a success. *Perfumery and Essential Oil Rec.* 25, No. 2, 38 (1934).

J. S. Heuisler, treasurer and general manager of the Maryland Glass Corp., bottle manufacturers, has resigned to accept the position of field sales manager with the Emerson Drug Co. Both concerns are closely affiliated, Bromo-Seltzer, Inc., being the parent company. Miss E. M. Schulle, advertising manager of Maryland Glass Corp., has been elected treasurer; L. C. Roche, general factory manager; and Philip I. Heuisler, Jr., assistant treasurer and assistant factory manager. Philip I. Heuisler continues as president of the company.

Dr. Foster Dee Snell addressed the New York Professional Chapter of Alpha Chi Sigma recently on the subject of laundering as a chemical process.

PROCTER & GAMBLE EARNINGS INCREASE

Earnings of the Procter & Gamble Company for the nine months ended March 31 show a good increase over the figures for the previous fiscal year, totaling \$11,139,358, as compared with \$10,811,456 for the entire twelve-month period of the fiscal year ended June 30, 1933. Earnings during the fiscal quarter ending March 31, 1934, were \$4,031,841, or 59 cents a share on common stock, as compared with \$2,723,677, or 39 cents a share, for the preceding quarter. Earnings for the corresponding period last year were \$2,451,052 or 34 cents a share. The company earned at the rate of \$1.52 a share during the last fiscal year and with only nine months of the present fiscal year reported the earnings already stand at \$1.62 a share on 6,410,000 shares of common stock. The company has announced an increase in the profit-sharing dividend rate affecting 2,000 employees in the Cincinnati area. The former flat rate of 8 per cent has been superseded by a sliding scale ranging from 5 to 15 per cent, depending on the length of service. Employees now receiving the 8 per cent rate will continue at this rate, regardless of length of service, but those who have been with the company six years or longer will receive the benefit of the increased rate.

A. D. M. A. RE-ELECTS HOMER SMITH

A. Homer Smith, Sharp & Dohme, Inc., Philadelphia, was re-elected president of the American Drug Manufacturers Association at the 23rd annual meeting held at White Sulphur Springs, April 16-19. One of the principal topics of discussion at the meeting was the pending food and drugs legislation. Recent revisions in this legislation were approved, but even further changes are desired by drug manufacturers, it was indicated. Interest was also expressed in the pending revision of the United States Pharmacopeia. Other officers re-elected included: vice-presidents, Oscar W. Smith, Parke, Davis & Co., Detroit; A. C. Boylston, Mallinckrodt Chemical Works, St. Louis; and John F. Anderson, E. R. Squibb & Sons, New Brunswick, N. J.; treasurer, S. DeWitt Clough, Abbott Laboratories, North Chicago.

Filtrol Company of California, producer of "Filtrol" and "Neutrol," has announced proposed construction of a new plant in the mid-western area.

Market Report on ESSENTIAL OILS AND AROMATICS

(As of May 9, 1934)

NEW YORK—A mixed trend featured the market for essential oils and aromatics this period. There were several interesting price developments, some representing moves to higher and some to lower levels. Anise and cassia oils were both priced higher in spite of the recent sharp decline in the value of silver bullion in the Far East. Citronella oil was one of the weaker features of the market. Under the stress of strenuous competition it continued to sell off further. Lemongrass oil also declined moderately.

ANISE OIL

Anise oil advanced several steps this period, the inside quotation now being 41c, with a range to 43c. Strenuous competition recently had driven the price of this oil down into the high thirties.

CASSIA OIL

The price of cassia oil advanced ten cents a pound this period, making the range \$1.10 to \$1.20. In the opinion of some market factors even this advance is not sufficient, it being held by them that any price under \$1.20 is too low. Replacement costs tend lower, however.

CITRONELLA OIL

The spot market for citronella oil was badly de-ranked this period, with sales reported at extremely low levels. Quotations on oil in drums ran as low as 28c pound, with unconfirmed reports of even lower figures.

LEMONGRASS OIL

Quotations on oil lemongrass eased this period, the current range being \$1.10 to \$1.25 pound. The market was much firmer at the lower level.

GERANIUM OIL

The market held steady on geranium oil this period, with prices unchanged.

PEPPERMINT OIL

Prices eased off ten cents a pound this period on peppermint oil, the current level of prices on natural oil being \$2.40 to \$2.65 pound.

The first Rhode Island Packaging Show sponsored by The Providence Chamber of Commerce and The Rhode Island School of Design was staged April 23 to 25 in Memorial Hall, Providence. Among the exhibitors were

National Collapsible Tube Co., Boston Wire Stitcher Co., Plywood Containers, Inc., Grimes Box Co., all of Providence, and the Mason Manufacturing Co. and the Brewster Sales Co., East Providence.

FIXING SOAP PERFUME

In perfuming or conferring a certain odor on a soap, two steps are necessary. One might be called primary perfuming and the other secondary. Both are needed in a good toilet soap. Primary perfuming consists of adding the desired perfume to the soap, which is relatively simple with a good neutral or faintly alkaline curd soap. The second step is to fix or conserve perfume, not only in the soap, but on the skin when the soap is used for washing. Such a fixative is a high-boiling and difficultly soluble material which acts as a solvent for the perfumery material. Often it must be such as not to color the soap. A product meeting these conditions has recently been put out by the I. G. Farbenindustrie in Germany. It is a synthetic balsam-like resin, a so-called resinoid. A goor fixative is important not only in toilet soap, but in medicated and disinfectant soaps. It is probable that the virtue of these soaps is associated very strongly in the mind of the user with after-odor. Walter Obst. *Riechstoff-Ind.* 9, 18-19 (1934).

Ungerer & Co., New York, have added a new metropolitan sales representative for their line of essential oils and aromatics, Alfred E. Dubey, Jr.

F. W. Heine, president of Compagnie Duval, N. Y., importers and manufacturers of perfuming materials, announces that A. W. Schirmer has joined the Duval organization. Mr. Schirmer was formerly connected with Magnus, Mabee & Reynard, New York.

Oelwerke Julius Schindler, Hamburg, Germany, has issued an elaborate illustrated booklet showing the extensive refining facilities of the company. Copies may be obtained by addressing S. Schwabacher & Co., New York, agents in United States for Schindler.

The name of the Lukens Steel Co., Coatesville, Pa., was misspelled in a note in the April issue of *Soap* mentioning their new bulletin on nickel-clad steel. Several uses for this product were described in detail and in addition, the bulletin showed photographs of several pieces of machinery, in which nickel-clad steel was used. Included in the list were a variety of soap kettles.

Market Report on SOAP AND DISINFECTANT CHEMICALS

(As of May 8, 1934)

NEW YORK—Activity in the market for soap and disinfectant chemicals continued high this period, with the price structure holding firm. Soap manufacturers continued to draw out substantial alkali shipments as activity continued at a good pace in that industry. In the coal-tar group, demand for naphthalene showed a seasonal expansion. Crude glycerine prices continued to advance, with producers not yet able to meet the demand for supplies. The rosin market was quiet, with prices moderately lower.

ALKALIS

Soap manufacturers have continued to operate at a high rate over the past month in an attempt to operate at a high rate over the past month in an attempt to get as much coconut oil as possible converted into soap before the effective date of the excise tax. The result has been a steady demand for shipment of alkalis against existing contracts. The price structure of the market holds firm.

COAL-TAR PRODUCTS

Naphthalene has enjoyed a seasonal expansion in demand over recent weeks as the householder has again appeared in the market for material for summer moth-control. The market has also been firm on such products as cresol, cresylic acid and tar acid oils. Prices of the latter hold steady at the recent advances.

GLYCERIN

Crude glycerin continued to advance this period, with the price of saponification now being $9\frac{1}{2}c$ to $9\frac{3}{4}c$ pound and soaps lye, $8\frac{1}{2}c$ to $8\frac{3}{4}c$. Demand still exceeds possible supply, with no replenishment of stocks looked for from abroad. Higher prices are looked on with disfavor by some factors as the market is now in a position where synthetic substitutes can compete.

ROSIN

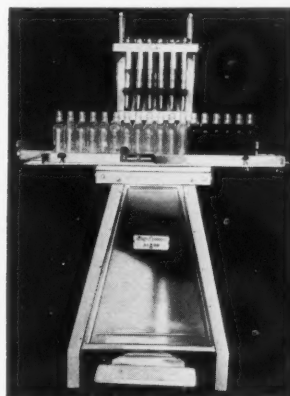
Rosin quotations declined moderately on most grades this period in a quiet market. The technical aspects is much improved over its position at this time last year, with present stocks much lower, in spite of increased receipts so far this year. This seems to indicate a more active demand. The closing quotations were: gum rosin, grade B, \$5.45; H, \$6.05; K, \$6.35; N, \$6.40; WG, \$6.45; X, \$6.60; wood, \$4.90 to \$6.50.

Wackman Welded Ware Co., St. Louis, has introduced a newly designed steel drum under the name of Wack-

man "Rim Seal" full open head drum. An outside locking ring prevents contamination of contents and makes the drum shock, tamper and leak-proof. Sealing or opening the rim is facilitated by use of a vertical action lever. The drum can be easily cleaned as there are no inwardly extending flanges or grooves in the interior.

DEVELOP NEW BOTTLE FILLER

Alsop Engineering Corp., New York, has developed a new bottle-filling machine which is described as fast,



accurate, easy to operate and low in price. A particular feature of the machine is its ability to insure even filling of uneven bottles. A simple adjustment is provided for feeding and filling different sized and shaped bottles. Automatically sealed filling spouts eliminate dripping. The design has been simplified to eliminate all overflow

containers, traps, bottles, valves, floats, etc. Other important items in the Alsop line are their portable mixers, filtering equipment, glass-lined tanks, pumps, etc.

RULE ON A. M. T. A. CODE AUTHORITY

The methods of selecting a permanent code authority for the perfume, cosmetic and toilet preparations industry, recommended by the temporary code authority, has been approved by the NRA. The Associated Manufacturers of Toilet Articles will appoint one representative and the Perfumes and Cosmetic Institute another. These two will select a third member, or in case of failure to agree, the third will be appointed by the administrative members. Four other members will be elected by an open vote of the industry, one to represent each of the following interests: the manufacturing beauty and barber supply industry; manufacturers of private brands and/or firms selling to syndicates; members of the industry whose annual sales volume in 1933 exceeded \$500,000, and members of the industry whose annual sales volume in 1933 was \$500,000 or less.

Stillwell & Gladding, Inc., analytical and consulting chemists, have moved their office and laboratory to 130 Cedar St., N. Y.

R
E
D

O
I
L



T
A
L
L
O
W
S

Controlled Production:—

We collect, render and refine all of the raw materials used in our stearic acid and red oil. This close control, not available in any other brand, insures high quality products by eliminating low grade raw materials. Let us submit samples and prices. There is no substitute for quality. Use them in your

Dry Cleaning Soaps

Shaving Soaps

Special Cleaners

Polishes

Liquid Soaps

FANCY - EXTRA and SPECIAL

TALLOW

Fatty Acids

**Theobald Animal
By-Products Refinery**

KEARNY, N. J.

ESTABLISHED 1914

WARNER

Quality

PIONEERED FOR NEARLY 50 YEARS

CAUSTIC SODA
HIGHEST GRADE
(ELECTROLYTIC)

IN EITHER
SOLID OR LIQUID
FORM

CARBON
TETRACHLORIDE
REDISTILLED
WATER-WHITE

SUPPLIED ALSO
IN COMBINATION WITH
OTHER SOLVENTS TO MEET
INDIVIDUAL REQUIREMENTS

TRI-SODIUM
PHOSPHATE

FINE GRANULAR AND
POWDERED
A FREE FLOWING AND NON-CAKING
PRODUCT NATIONALLY KNOWN
FOR ITS UNIFORM QUALITY

*An opportunity to submit samples
and quotations is solicited*

WARNER

CHEMICAL COMPANY

Pioneer Producers 1886

CHRYSLER BUILDING
NEW YORK CITY

155 E. SUPERIOR ST.
CHICAGO

70 RICKARD ST.
SAN FRANCISCO

EXCLUSIVE SALES AGENTS for WESTVACO CHLORINE PRODUCTS, Inc.

Market Report on TALLOW, GREASES AND OILS

(As of May 8, 1934)

NEW YORK—The pace of the oil, fat and grease market continued slow this period, with buyers standing aside to await further developments in the excise situation. The compromise bill decided on by the joint committee of the House and Senate finally fixed the tax rate at three cents per pound on the imported oils, with the exception of coconut oil from points other than the Philippines where the tax is to be five cents per gallon. To date the revenue bill containing the excise tax measure has not been signed by the President, but it is indicated that the signature may be expected within a day or two. The effect of the bill on market prices has been small. Grease and tallow have advanced about a half-cent each, and some imported oils are off fractionally, but the only major effect has been to slow up trading.

COCONUT OIL

The coconut oil market continued to mark time this period, as buyers and sellers alike awaited definite word on the excise tax before making commitments. The quotation on New York tanks of Manila oil remains unchanged at $2\frac{3}{8}$ c to $2\frac{3}{4}$ c pound, with the Pacific Coast price fractionally higher at $2\frac{3}{8}$ c to $2\frac{1}{2}$ c.

CORN OIL

The corn oil market was somewhat easier this period, with mill tanks quoted slightly lower at $4\frac{5}{8}$ c pound.

COTTONSEED OIL

Cottonseed oil eased off fractionally this period to an inside price of $4\frac{1}{8}$ c for crude, with the market quiet. Traders were inactive and the weakness of commodity and security markets had a sympathetic effect.

GREASE

Grease was one of the few materials which showed a definite price gain as a result of the acceptance of the excise tax. Prices this period were a half-cent a pound higher than prices last month, in spite of the fact the higher level brought additional offerings into the market. Yellow and house grease are quoted currently at $3\frac{1}{2}$ to $3\frac{5}{8}$ c pound, with white grease at $3\frac{3}{4}$ c to $4\frac{1}{4}$ c.

TALLOW

Tallow also increased in price this period, city extra advancing a half-cent to a figure of 4c pound at one time. There were increased offerings at this level and subsequent sales were made at concessions of an eighth of a cent a pound.

J. D. Rockafellow, southwestern representative for Fritzsche Bros., S. B. Penick & Co. and Harshaw Chemical Co., died recently at his home in San Antonio, Texas.

NEW USES FOR GLYCERIN

Producers are finding a new outlet for glycerin, one of the more important being its use in the manufacture of synthetic resins of the "glyptal" type. These are made by esterifying polyhydric alcohols with polybasic acids. The resins are used in the protective coating field, due to their special properties of weather resistance, ability to retain gloss over long periods, excellent flexibility, adhesion and flow. Some nine million pounds of these resins were used last year. Glycerin has been proved to be utilizable as a food and will probably find increasing applications in bakery products, liquors and cordials. Many possibilities await development in the field of glycerin derivatives. Some of the ethers are proposed as starting points in the preparation of new detergents. Kenneth Hoover. *Oil and Soap*, 11, 69-71 (1934).

The annual convention of the Flavoring Extract Manufacturers' Association will be held at the Waldorf-Astoria Hotel, New York City, May 21-23. B. J. Gogarty of the Rossville Commercial Alcohol Corporation is chairman of the entertainment committee. His plans for the convention include a tour of Radio City and a night club party on the evening of the 21st, a choice of golf or a tour of the Long Island park system the following day, and the annual banquet that evening.

Disinfecting soaps should kill *coli bacteria* or *staphylococci* in 3 to 5 minutes in a 1 to 2 per cent solution, without irritating the skin. Sodium soaps for saturated fatty acids containing phenols are found to be superior in bactericidal power to similar potassium soaps of saturated or unsaturated fatty acids. R. Voss. *Seifensieder Ztg.* 60, 855-6, 875, 893-4 (1933).

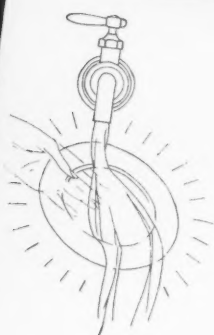
Phoenix Metal Cap Co. has opened a branch office in Baltimore, Md., at 311 Keyser building. J. L. Zeman, who formerly represented Phoenix at both Los Angeles and San Francisco, is in charge.

Consolidated Products Co. has completed alterations and extensions to its suite on the 20th floor of 13-21 Park Row, New York, adding a number of new private offices and enlarging executive and clerical space.

A pure, brilliant white, free-flowing material of uniform high quality and superior mechanical condition. Available in four grades: chip, flake, fine and powdered.

VICTOR CHEMICAL WORKS
141 W. Jackson Blvd., Chicago, Ill.

Another advantage
of the packaged cleanser
made from



**Easily
rinsed!**

SOME soaps and cleansers are almost as difficult to rinse away as the dirt they are intended to remove. But not the packaged cleanser made from Victor Tri Sodium Phosphate. T. S. P. is surprisingly easy to rinse from hard surfaces and fabrics . . . a fact that will cause many housewives to sit up and take notice.

Sales making data on request

Complete laboratory data covering the many advantages of Victor Tri Sodium Phosphate will gladly be supplied on request. Packagers of this popular household cleanser will find the information of considerable value in preparing sales promotion material and advertising campaigns.

STAUFFER CHEMICALS

for Soaps and Cleaners

Caustic Soda

"STAUFFER BRAND" Caustic Soda can be supplied either solid or liquid, in drums or tank cars. It is uniform, pure and worth while using in your soap products. Send your next Caustic Soda inquiry to us.

Carbon Tetrachloride

"STAUFFER BRAND" Carbon Tetrachloride will make a good cleaner better. It is 99.9% pure, the purest obtainable anywhere, is water white and is absolutely free from residue or residual odor. May we work with you when you are next in the market? Let us submit samples and prices. Anything from a drum up.

May we estimate on your requirements?



STAUFFER CHEMICAL COMPANY

Plants
Niagara Falls, N. Y.
Los Angeles, Cal.

Office
420 Lexington Ave.
New York City

CURRENT PRICE QUOTATIONS

As of May 8, 1934

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums.....lb.	.08½	.10
Acid, Boric, bbls., 99½%.....ton	95.00	100.00
Cresylic, 97% dk., drums.....gal.	—	.55
97-99%, pale, drums.....gal.	—	.60
Oxalic, bbls.....lb.	.11	.11¼
Adeps Lanae, hydrous, bbls.....lb.	.14	.15
Anhydrous, bbls.....lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls.....gal.	2.45	2.59
Complete Denat., No. 5, drums., ex. gal.	.34	.42
Alum. Potash lump.....lb.	.03	.03¼
Ammonia Water, 260, drums, wks.....lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls.....lb.	.08	.12½
Bleaching Powder, drums.....100 lb.	1.75	2.35
Borax, pd., cryst., bbls., kegs.....ton	50.00	55.00
Carbon Tetrachloride, car lots.....lb.	—	.05¼
L. C. L.....lb.	.06	.08½
Caustic, see Soda Caustic, Potash Caustic		
China Clay, filler.....ton	10.00	25.00
Cresol, U. S. P., drums.....lb.	.11	.11½
Creosote Oil.....gal.	.11½	.12½
Feldspar.....ton	14.00	15.00
(200 to 325 mesh)		
Formaldehyde, bbls.....lb.	.06	.07
Fullers Earth.....ton	15.00	24.00
Glycerine, C. P., drums.....lb.	.12½	.13
Dynamite, drums.....lb.	.12¼	.12¾
Saponification, drums.....lb.	.09½	.09¾
Soaps, Lye, drums.....lb.	.08½	.08¾
Hexalin, drums.....lb.	—	.30
Kieselguhr, bags.....ton	—	35.00
Lanolin, see Adeps Lanae.		
Lime, live, bbls.....per bbl.	1.70	2.20
Mercury Bichloride, kegs.....lb.	.93	1.08
Naphthalene, ref. flakes, bbls.....lb.	.06	.07¼
Nitrobenzene (Myrbane) drums.....lb.	.09½	.11
Paradichlorobenzene, bbls., kegs.....lb.	.16	.25
Paraformaldehyde, kegs.....lb.	.38	.39
Petrolatum, bbls. (as to color).....lb.	.01¾	.06¾
Phenol, (Carbolic Acid), drums.....lb.	.14¼	.16
Pine Oil, bbls.....gal.	.59	.65
Potash, Caustic, drums.....lb.	.07½	.07½
Flake.....lb.	.08	.08¼
Potassium Bichronate, casks.....lb.	.08½	.08½
Pumice Stone, powd.....100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—		
Grade B to H, basis 280 lbs.....bbl.	5.45	6.05
Grade K to N.....bbl.	6.35	6.40
Grade WG and X.....bbl.	6.45	6.60
Wood.....bbl.	4.90	6.50
Rotten Stone, pwd. bbls.....lb.	.02½	.04½
Silica, Ref., floated.....ton	18.00	22.00
Soap, Mottled.....lb.	.04½	.04½
Olive Castile, bars.....lb.	.09	.12
powder.....lb.	.17	.22
Olive Oil Foot.....lb.	.04½	.06
Powdered White, U. S. P.....lb.	.16	.20
Green, U. S. P.....lb.	.06½	.08
Tallow Chips.....lb.	.06	.06½
Whale Oil, bbls.....lb.	.05	.06
Soda Ash, contract, wks, bags, bbls. 100 lb.	1.23	1.50
Car lots, in bulk.....100 lb.	—	1.05
Soda Caustic, Cont., wks., sld.....100 lb.	—	2.60
Flake.....100 lb.	—	3.00
Liquid, tanks.....100 lb.	—	2.25

Soda Sal., bbls.....100 lb.	1.10	1.35
Sodium Chloride (Salt).....ton	11.40	14.00
Sodium Fluoride, bbls.....lb.	.07½	.09¼
Sodium Hydrosulphite, bbls.....lb.	—	.22
Sodium Silicate, 40 deg., drum.....100 lb.	—	.80
Drums, 60 deg. wks.....100 lb.	—	1.65
In tanks, 15c. less per hundred, wks.		
Tar Acid Oils, 15-25%.....gal.	.21	.25
Trisodium Phosphate, bags, bbls.....lb.	.03	.0355
Zinc Oxide, lead free.....lb.	.06	.06¼
Zinc Stearate, bbls.....lb.	.18	.19

Oils—Fats—Greases

Castor, No. 1, bbls.....lb.	.10¼	.11
No. 3, bbls.....lb.	.09¾	.10½
Coconut		
Ceylon, Coast Tanks.....lb.	.02¾	.02½
Cochin, barrels, N. Y.....lb.	.04¼	.04½
Manila, tanks, N. Y.....lb.	.02¾	.02¾
Tanks, Pacific coast.....lb.	.02¾	.02½
Cod, Newfound, bbls.....gal.	.48	Nom.
Copra, bulk, Coast.....lb.	—	.0125
Corn, tanks, mills.....lb.	—	.04¾
Bbls., N. Y.....lb.	—	.05¼
Cottonseed, crude, tanks, mill.....lb.	.04½	.04¼
PSY.....lb.	—	Nom.
Degras, Amer., bbls.....lb.	.02¾	.04
English, bbls.....lb.	.04¼	.04½
German, bbls.....lb.	.03¾	.04
Neutral, bbls.....lb.	.07¼	.09¼
Greases, choice white, bbls., N. Y.....lb.	.03¾	.04¼
Yellow.....lb.	.03½	.03¾
House.....lb.	.03½	.03¾
Lard, prime, steam, tierces.....lb.	.06½	.06¼
Compound tierces.....lb.	.07½	.07¾
Lard Oil,		
Extra, bbls.....lb.	—	.07¾
Extra, No. 1, bbls.....lb.	—	.07½
No. 2, bbls.....lb.	—	.06½
Linseed, raw, bbls., spot.....lb.	.0950	.0990
Tanks, raw.....lb.	—	.0890
Boiled, 5 bbls. lots.....lb.	—	.1070
Menhaden, Crude, tanks, Balt.....gal.	.20	Nom.
Oleo Oil, No. 1, bbls., N. Y.....lb.	—	.05½
No. 2, bbls., N. Y.....lb.	—	.05½
Olive, denatured, bbls., N. Y.....gal.	.88	.90
Foots, bbls., N. Y.....lb.	.07	.07½
Palm.....lb.	.03¾	.03¼
Palm Kernel, casks, denatured.....lb.	.03½	Nom.
Peanut, domestic tanks.....lb.	.05½	Nom.
Red Oil, distilled, bbls.....lb.	.06¾	.07¾
Saponified, bbls.....lb.	.06¾	.07¾
Tanks.....lb.	—	.06
Soya Bean, domestic tanks, N. Y.....lb.	—	.06¼
Stearic Acid		
Double pressed.....lb.	.09	.10
Triple pressed, bgs.....lb.	.11¾	.12¾
Stearine, oleo, bbls.....lb.	.05¼	.05¼
Tallow, special, f. o. b. plant.....lb.	—	.03¾
City, ex. loose, f. o. b. plant.....lb.	—	.03¾
Tallow, oils, acidless, tanks, N. Y.....lb.	—	.06¾
Bbls., c/l, N. Y.....lb.	—	.07¾
Whale, crude.....lb.	.03½	.04
refined.....lb.	.06¾	.07

for 96 years

Importers Dealers Brokers

We have been supplying raw materials to the
Soap and Allied Industries

OLIVE OIL, all grades OLIVE OIL FOOTS

Fatty Acids, Animal and Vegetable

Cottonseed Soapstock

Boiled-down Cottonseed Soap

Neatsfoot Oil
Coconut Oil
Cottonseed Oil
Palm Kernel Oil
Stearic Acid
Oleo Stearine
Soya Bean Oil
Palm Kernel Oil
(English or German
Denatured)

Rapeseed Oil
(Undenatured)
Castor Oil
Sesame Oil
Lard Oil
Palm Oil
Corn Oil
Peanut Oil
Grease (Animal)

Tallow
Red Oil
Soap Colors
Chlorophyll
Soda Ash
Sal Soda
Talc

Trisodium Phosphate
Caustic Potash
Carbonate Potash
Bath Powder
Modified Soda
Caustic Soda
Silicate of Soda
Meta Silicate and
Metso

"CEREPS" Superfatting Neutralizing Agent

Write for Information and Samples.

WELCH, HOLME and CLARK CO., Inc.

563 Greenwich St.

New York City

Established 1838

NEW SOAP IDEAS · INFORMATION

**S
O
A
P**

TRADE

**E
V
I
E
W**

NOW more than ever, it is necessary to keep in touch with trade developments in all parts of the world. THE SOAP TRADE REVIEW is the only monthly dealing exclusively with the Soap, Perfumery and Cosmetic Industries in Great Britain. It contains authoritative articles and the latest news and information of interest to those engaged in these industries.

Specimen copy posted free.

Subscription rate 12/6 per annum.

THE SOAP TRADE REVIEW

102-3 SHOE LANE, FLEET ST.
LONDON, E. C. 4



As of May 8, 1934

Essential Oils

Almond, Bitter, U. S. P.	lb.	\$2.00	\$2.50
Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans.	lb.	.60	.65
Anise, cans, U. S. P.	lb.	.41	.43
Apricot, Kernel, cans.	lb.	.24	.26
Bay, tins.	lb.	1.25	1.50
Bergamot, coppers.	lb.	1.45	1.90
Artificial.	lb.	1.00	1.20
Birch Tar, rect., tins.	lb.	.70	.80
Crude, tins.	lb.	.13	.14
Bois de Rose, Brazilian.	lb.	1.20	1.30
Cayenne.	lb.	2.50	2.90
Cade, cans.	lb.	.26	.30
Cajuput, native, tins.	lb.	.50	.60
Ca. amus, tins.	lb.	3.25	3.50
Camphor, Sassy, drums.	lb.19
White, drums.	lb.21
Cananga, native, tins.	lb.	2.00	2.05
Rectified, tins.	lb.	2.50	2.55
Caraway Seed.	lb.	1.90	2.00
Cassia, Redistilled, U. S. P.	lb.	1.15	1.20
drums.	lb.	—	1.10
Cedar Leaf, tins.	lb.	.65	.70
Cedar Wood, light, drums.	lb.	.27	.28
Citronella, Java, drums.	lb.	.38	.43
Citronella, Ceylon, drums.	lb.	.28	.29
Cloves, U. S. P., cans.	lb.	.95	.96
Eucalyptus, Austl., U. S. P., cans.	lb.	.27	.28
Fennel, U. S. P., tins.	lb.	1.10	1.20
Geranium, African, cans.	lb.	6.00	7.50
Bourbon, tins.	lb.	5.40	6.40
Hemlock, tins.	lb.	.65	.75
Lavender, U. S. P., tins.	lb.	2.40	6.00
Spike, Spanish, cans.	lb.	.78	.83
Lemon, Ital., U. S. P.	lb.	.90	1.40
Lemongrass, native, cans.	lb.	1.10	1.15
Linaloe, Mex., cases.	lb.	1.15	1.25
Nutmeg, U. S. P., tins.	lb.	1.30	1.35
Orange, Sweet, W. Ind., tins.	lb.	1.25	1.40
Italian cop.	lb.	1.10	1.70
Distilled.	lb.	.55	.60
Origanum, cans, tech.	lb.	.25	.50
Patchouli.	lb.	2.75	3.00
Pennyroyal, dom.	lb.	2.00	2.05
Imported.	lb.	1.35	1.70
Peppermint, nat., cases.	lb.	2.40	2.65
Redis., U. S. P., cases.	lb.	2.65	2.90
Petit Grain, S. A. tins.	lb.	1.10	1.15
Pine Needle, Siberian.	lb.	.72	.80
Rose, Natural.	oz.	5.50	18.00
Artificial.	oz.	2.00	3.00
Rosemary, U. S. P., tins.	lb.	.32	.38
Tech., lb. tins.	lb.	.28	.30
Sandalwood, E. Ind., U. S. P.	lb.	5.75	6.00
Sassafras, U. S. P.	lb.	.75	1.00
Artificial.	lb.40
Spearmint, U. S. P.	lb.	1.15	1.35
Thyme, red, U. S. P.	lb.	.50	.80
White, U. S. P.	lb.	.80	1.00
Vetivert, Bourbon.	lb.	6.50	8.50
Java.	lb.	16.00	20.00
Ylang Ylang, Bourbon.	lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	\$1.50	\$2.25
Amyl Cinnamic Aldehyde.	lb.	3.50	4.25
Anethol.	lb.	1.00	1.10
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.10	1.30
Benzyl, Acetate.	lb.	.60	1.00
Alcohol.	lb.	.75	1.15
Citral.	lb.	1.90	2.20
Citronellal.	lb.	2.25	2.50
Citronellol.	lb.	2.55	3.00
Citronellyl Acetate.	lb.	4.50	7.00
Coumarin.	lb.	3.10	3.30
Cymene, drums.	gal.	.90	1.25
Diphenyl oxide.	lb.	1.05	1.25
Eucalyptol, U. S. P.	lb.	.55	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic.	lb.	1.25	2.00
Imported.	lb.	2.00	3.00
Geranyl Acetate.	lb.	2.50	4.00
Heliotropin.	lb.	1.85	2.10
Hydroxycitronellal.	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone.	lb.	3.60	6.50
Iso-Eugenol.	lb.	3.00	4.25
Linalool.	lb.	1.65	2.25
Linalyl Acetate.	lb.	3.00	4.25
Menthol.	lb.	3.50	3.60
Methyl Acetophenone.	lb.	2.50	3.00
Anthranilate.	lb.	2.15	3.20
Paracresol.	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette.	lb.	5.75	6.00
Ketone.	lb.	6.25	6.50
Moskene.	lb.	5.00	6.00
Xylene.	lb.	2.00	2.50
Phenylacetaldehyde.	lb.	4.00	6.50
Phenylacetic Acid, 1 lb., bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.25	4.50
Rhodinol.	lb.	5.75	8.00
Safrol.	lb.	.45	.48
Terpineol, C. P., 1,000 lb. drs.	lb.	.33	.35
Cans.	lb.	.36	.37
Terpinyl Acetate, 25 lb. cans.	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	4.50	5.75
Yara Yara.	lb.	1.30	2.00

Pyrethrum Products

Insect powder, bbls.	lb.	.35	.37
Concentrated Extract			
5 to 1.	gal.	2.05	2.10
15 to 1.	gal.	5.75	6.00
20 to 1.	gal.	7.80	7.85
30 to 1.	gal.	11.55	11.60

Gums

Arabic, Amb. Sts.	lb.	.08½	.09
White, powdered.	lb.	.12	.13
Karaya, powdered No. 1.	lb.	.08	.09
Tragacanth, Aleppo, No. 1.	lb.	1.15	1.20
Sorts.	lb.	.11	.12

Waxes

Bees, white.	lb.	.34	.37
African, bgs.	lb.	.21	.22
Refined, yel.	lb.	.26	.29
Candelilla, bgs.	lb.	.14	.14½
Carnauba, No. 1.	lb.	.32	.33
No. 2, Yel.	lb.	.32	.33
No. 3, Chalky.	lb.	.20	.21
Ceresin yellow.	lb.	.36	.38
Paraffin, ref. 125-130.	lb.	.03¾	.04¼

Schools Are Buying!

Reach This Market With Federal Floor Products

Schools, Colleges, Universities everywhere are now placing orders for their requirements of floor maintenance products and will be buying for the next two or three months.

Distributors of Federal Specialized Floor Finishes and Polishes are remarkably successful in serving this vast school market because Federal is the only manufacturer equipped to give them the right product for the right surface. Federal makes sure that every distributor has the necessary knowledge and information about its products to be of real service to school executives, recommending authentic treatments for every type of floor developed after years of scientific research and rigid testing by Federal chemists.

Federal is the only manufacturer offering you a complete line of specialized preservatives and polishes for every floor surface with its entire technical staff working only on these types of finishes. Such well known products as Mop-Var, Lightning Lustre, No Burn Gym Finish and many others have come out of this famous laboratory. Gym Finish Concentrated Base Colors in seven beautiful and practical shades is the latest achievement of Federal chemists.

You need Federal Floor Products to reach the big school market successfully.

Let us tell you how to cash in on this opportunity for more sales and greater profits.

•
FEDERAL VARNISH CO.
337 So. Peoria St., Chicago, Ill.

THEIR QUALITY *Deserves Your Preference*



CRESYLIC ACID
CRESOL
CRESOL U.S.P.
XYLENOL
TAR ACID OILS
NAPHTHALENE

*For the Soap and
Disinfectant
Industry*

12
Convenient
Plants

REILLY

TAR & CHEMICAL CORPORATION

MERCHANTS BANK BUILDING • • INDIANAPOLIS, IND.
SEATTLE, WASH. • PROVO, UTAH • MINNEAPOLIS, MINN. • CHICAGO, ILL. •
GRANITE CITY, ILL. • INDIANAPOLIS, IND. • DOVER, OHIO • FAIRMONT, W. VA.
• NEWARK, N. J. • NORFOLK, VA. • CHATTANOOGA, TENN. • MOBILE, ALA.

THE OIL SOAP INDUSTRY

(From Page 27)

When the concentration is exactly right, the sample will break smartly with very little bending, it will be extremely resilient to pressure, and the fracture will be almost conchoidal in appearance, without the least trace of visible water. The effects which varying concentrations have on the solidity and the translucency of the soap are shown graphically in Figure II. The solid line represents solidity. It will be noted that the solidity is very low all through the lower range of concentration. As a matter of fact, the soap is simply a wet and stringy mess until the concentration approaches 50 per cent. From that point on, the firmness increases at an ascending rate, until it reaches a first maximum at about 68 per cent Total Anhydrous Content. Then it falls very rapidly to a low point at about 74 per cent, and again increases as the anhydrous content is raised still higher.

However, it will be noted from the broken line, which represents translucency, that this characteristic reaches its only maximum at a point coinciding with the first maximum of the solidity curve. Thereafter, the translucency decreases very rapidly, and the highly solid product represented by the area about 80 per cent is a perfectly opaque one, and is therefore unsuitable in that it lacks what has come to be considered an indispensable element of visual sales appeal for this class of soap. The concentration of about 68 per cent, therefore, is the one at which the soap has the maximum of desirable properties, and is therefore the one at which it is finished.

One interesting detail in connection with these tests is the fact that a sample which has been cooled too rapidly—as by placing the sample pan on a cake of ice—does not reliably indicate the condition of the batch in the kettle. Best results are obtained by allowing the sample to cool with only the mild forcing of exposure to cool room temperature. It would of course be preferable that these concentration tests be handled by some mechanical contrivance which would eliminate as many of these variables as possible, and which especially would minimize the importance of the personal judgment which is now such a factor. One testing device of this kind, developed by the writer but not yet submitted to thorough trials, will be described in the next article of this series.

And possibly, by way of documentation, it should be mentioned that the facts and suggestions presented in these articles spring from a variety of sources, all felt to be thoroughly reliable, including information gained from soap users, from consultants and from other units of the industry, as well as from the writer's personal experience.

NOTE: A second article in this series on oil soaps and the oil soap industry will be published in the next issue of Soap.—Editors.

An addition to the tariff on soap imported into Iraq has recently been announced. On "Syrian" soap, from 7 to 8 per cent and laundry soaps for washing clothes from 6 to 7 per cent. This new tariff is now in operation.

SPECIALTY SOAPS

LIQUID SOAP BASE

Coco Oil—60%—Natural, Opal,
Green

LIQUID SOAPS

Coconut 10% to 45%
Olive Oil 10% to 30%

Colored and Perfumed

SCRUBBING SOAPS

Pine, Sassafras, Plain

LIQUID SHAMPOOS

Coconut Oil .. 30% to 45%
Olive Oil 30%
Castile 30%

POWDERED and GRANULATED SOAPS

Castile, U. S. P.
Coco Castile 50-50
Pure Coconut

SOFT POTASH SOAPS

Light and Dark
U. S. P. 9th and 10th

PHONE CUMBERLAND 6-2800

KRANICH SOAP CO.
54-60 RICHARDS ST. BROOKLYN, N.Y.

USER'S DATA ON USS PLYKROME

USS PLYKROME is available in these sizes:

MAXIMUM WIDTH OF PLATE.....	72 inches
MAXIMUM LENGTH OF PLATE.....	24 feet
MINIMUM THICKNESS.....	$\frac{1}{8}$ inch
MAXIMUM THICKNESS.....	$\frac{5}{8}$ inch
THICKNESS OF STAINLESS STEEL VENEER	
On plates $\frac{1}{4}$ inch thick or heavier.....	.050 inch or .060 inch
On plates lighter than $\frac{1}{4}$ inch.....	.050 inch
STAINLESS VENEER IS USS STABILIZED 18-8	
BACKING PLATE IS LOW CARBON STEEL	
STANDARD FINISHES AVAILABLE: Sand blast	

For data on lighter weights or special finishes write Illinois Steel Company.

CORROSION RESISTANCE

On its stainless face, PLYKROME is completely inert under all natural atmospheres containing the usual traces of corrosive gases and moisture.

It is also resistant to the corrosive action of a wide variety of chemicals and of by-product reagents and raw materials. While service tests should determine the performance of PLYKROME under actual conditions, the following list will indicate the wide variety of media to which PLYKROME is highly resistant:

ACETIC ACID cold, at any concentration; hot, up to 10%	HYDROGEN SULPHIDE LAUNDRY SOLUTIONS with few exceptions
ALKALINE SOLUTIONS including Ammonium Hydroxide	MILK AND DAIRY PRODUCTS
BICHLORIDE OF MERCURY in usual antiseptic strengths	NITRIC ACID
CARBOLIC ACID	PHOTOGRAPHIC SOLUTIONS
CARBONATED WATER	SALT SOLUTION
CITRIC ACID cold, moderate strength	SEA WATER
COPPER SULPHATE	SULPHURIC ACID cold, very slight action
FRUIT AND VEGETABLE JUICES	SULPHUROUS ACID
HYDROGEN PEROXIDE	WOOD PULP
FERMENTED OR DISTILLED DRINKS	YEAST
	ZINC CHLORIDE, cold
	ZINC SULPHATE

FABRICATION FACTS

PLYKROME generally may be worked in accordance with the usual methods and with the same equipment as employed on ordinary carbon steels. It may be:

WELDED	FORMED HOT	DEEP DRAWN
BEADED	COLD ROLLED	

PLYKROME does not oxidize at elevated temperatures once a thin adherent scale is formed. It scales comparatively little below 1600 to 1650 degrees F.

Because its Stainless Steel surface has been stabilized, PLYKROME does not require annealing following welding or hot forming, to preserve its corrosion resistant qualities. This is of particular importance on those products which cannot be heat-treated after fabrication.

USS PLYKROME

Illinois Steel Company
208 SOUTH LASALLE STREET, CHICAGO, ILLINOIS



SUBSIDIARY OF UNITED STATES STEEL CORPORATION
U S S CHROMIUM-NICKEL ALLOY STEELS ARE PRODUCED UNDER LICENSES OF THE CHEMICAL FOUNDATION, INC., NEW YORK, AND FRIED. KRUPP A. G. OF GERMANY

PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps, published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Detergents—Old and New

A Discussion of the Igepons, Their Composition and Uses

By HAROLD A. SWEET*

General Dyestuff Corp.

THIS matter of detergents is a very interesting subject. We come across them so often in our daily lives, especially in our advanced civilization, that it is hard for us to realize that we did not always have detergents. However, in ancient days they were practically unknown, especially soaps. Clothing was cleaned by nearly pummeling or rubbing together under water. Sometimes it was placed in a pit, covered with water, and worked with the bare feet, loosening the dirt in that way.

The Greeks, as we know them, are supposed to have had an advanced degree of civilization and yet they did not have soaps. There were certain vegetables which when dried and powdered gave a certain sudsing effect or foaming and this was used in place of the soap as we know it today or detergents. They probably had more or less of a mechanical action in releasing the soil, and cleansed in that way.

The Romans were probably the first to use any detergent of any kind and this was made from decomposed urine. The active detergent in this case was the ammonium carbonate. The "fullones" of Rome, who were a class of people licensed to do laundering, used what we would probably call Fuller's earth, and had complete control of the mining of this commodity. There is some contention among the historians as to who were actually the first users of soap, which was the forerunner of our present type. It was either the Gauls themselves, the Phoenicians who settled in Gaul in 600 B. C., or the

Germans. The records show that the beginning of the use of soap took place from 600 B. C. to 200 A. D.

Little is known of the history of soap making up to the fifteenth century. At that date Germany was actively engaged in developing soap and in southern France soap was being made from vegetable oils. These soaps were to become famous as the "Marseilles Soaps." This was the beginning of the soap made from palm, olive and coconut oils. The time of introduction of soap making in England is indefinite, but it was probably about the fourteenth or fifteenth century.

With the coming of the Le Blanc process for the manufacture of soda and caustic alkalies, in about 1800, great advancement was recorded in soap manufacture. The early American housewife made her soap from fat drippings and wood ashes from which was derived the necessary lye. From this point, the advance in manufacturing methods and quality obtained has been very rapid.

The textile industry has probably had more to do with the perfecting of soap making than many people realize. With the demand for more efficient cleansing before dyeing and processing of fabric, research was stimulated and special types of soap appeared on the market. However, for the same reason that caused the necessity of research to produce a finer soap, the deficiencies of all soaps were realized. They are obtained by saponification of animal and vegetable fats consisting of the glycerin esters of fatty acids of high molecular weight. Of all the fatty acids used such as stearic, oleic and palmitic, the oleic is the most soluble and the most stable.

* Address before N. Y. Section, Amer. Assn. Textile Chemists and Colorists. (Pub. Off. Jour. *American Dyestuff Reporter*, Vol. 23, No. 8.)

Soap has various properties such as lowering of surface tension and subsequent wetting power, excellent emulsifying action, and use as a lubricant. It is probably all of these which give soap its property of a detergent. It was formerly believed that the hydrolysis of soap liberating free alkali had much to do with its detergent power. However, this has been disproved by showing what a small percentage of free alkali is liberated in a typical soap solution. There are different theories as to the detergent action of soap. The principal ones are the colloidal, emulsification, lubricant, and Brownian movement theories.

With increased research on textile processes, soap was shown to have the following disadvantages: 1—Forming insoluble calcium and magnesium soaps when applied to hard water. 2—Instability in a process where acid or alkali is present. 3—Reaction with various metal salts or ions giving precipitates of the corresponding insoluble soaps. 4—Disassociation in solution giving free alkali.

It is not necessary to elaborate on the problem of hard water, other than to recall that fifteen pounds of soap are consumed per one thousand gallons of water at twelve degrees hardness; streaks of insoluble calcium or magnesium soap appear after dyeing; rancid odors result on storing such goods; general appearances are dull; and "feel" is harsh or sometimes even gummy.

The need for a penetrant in an acid bath was long felt and also for a more efficient cleansing treatment of fiber than by alkali. Some fibers are sensitive to free alkali and the dissociation of soap causes considerable harm. Small amounts of different metallic salts are often accumulated in process water. When combined with soap they are sure to leave specks or streaks on the material.

The disadvantages of soaps for textile use led to research which developed the first step away from soap, namely the sulfonation of oils instead of saponification. The first oil to be rendered soluble by sulfonation was castor oil and the resulting product was the now famous Turkey red oil. This is a method for bringing these fats into a form soluble in water by sulfonating them with sulfuric acid. With the advent of the Turkey red oil it was thought that a substitute had been found for soap in the textile industry. However, it was soon discovered that although its calcium and magnesium salts were moderately soluble, the Turkey red oil was a poor detergent. It also lacked the property of imparting the soft feel to fabrics that soaps do. The success of Turkey red oil for other purposes led to more intensive research along similar lines with higher degrees of sulfonation into the Monopol brilliant oils and finally to the pre-tabit oil the properties of which in hard water are excellent. It was found that the higher the degree of sulfonation the greater the stability in hard water, but the less the value of scouring agents. The principal use of this type of compound has been as a wetting agent. The stability of these higher sulfonated oils was also excellent in regard to acid, alkali and metallic salts.

The point to be remembered is, that these early attempts to improve soap really led to the creation of entirely new products which possessed interesting and commercially valuable properties but unfortunately lacked detergent properties and therefore missed the mark. These new products achieved some of the much sought for stability but at the sacrifice of the fundamental soapy character.

Not only oils but fats and their derivatives, also in a few cases organic solvents, were either used as basic materials for sulfonation or combined in the final product of the sulfonates. Sulfonation was carried out as far as possible and also various condensations of the different fatty bodies were formed. The ultimate goal was to prepare a material with soap-like properties having perfect stability against hard water, acids, alkalies, metallic salts and with the highest wetting power. These ends have been realized but detergency lost and these products today belong to a different brand of chemistry from soap.

It is only natural to expect combinations of all these products to be attempted so as to capitalize the virtues of each. Soaps are still in use which contain organic solvents such as naphtha, pine oil, etc. Some of these are very serviceable but they all retain the inherent instability of soap because their fundamental character remains unchanged.

Thought has been to get something along the soap line which will do away with the disadvantages which soaps have always had. However, we cannot lose sight of the fact that soaps are inexpensive and probably always will be because the cost of manufacture is low, the equipment is fairly inexpensive and the raw materials cheap and plentiful. Their price may rise at times and the price of soap may increase a few cents a pound but the fact remains, that there has been very little change in the price of soap in the last few years in relation to other commodities.

THE Nekal or naphthalene sulfonate derivatives were the next research development but they also lacked the soap powers of detergency the same as the sulfonated oils. The fatty qualities of the soaps seemed to give the textiles the desired soft feel. The naphthalene sulfonate type is still the leading wetting agent on the market and its use in many fields outside of textiles is increasing almost daily. It has more or less displaced the sulfonated oils in certain branches of the textile field but still does not meet the demand for a soapy material without the disadvantages of a soap, which would give the soft feel to textile material and also possesses detergency.

With continued research on soap manufacture it was found that it is the carboxylic group, COOH, which is responsible for the deficiency of soap. Investigative work was then started following the idea of starting with the basic soap making materials, the saponifiable fats and oils, which were known to have the desired properties for textile use, and block off the COOH group which causes all the trouble.

With the sulfonated oils, the sulfonation takes place in

the fatty acid component. It was found, that starting with certain sulfonated compounds and forming the fatty acid esters, the troublesome COOH group was blocked. The products obtained were very soluble in water and retain the scouring effect of soap as well as giving the much desired soft feel to fabrics. It has not been possible to obtain these substances by direct sulfonation, but it is necessary to produce these sulfonated fats in a synthetic way by making esters from different fatty acids with the sulfonated compounds.

These products are known commercially as the Igepons and for the sake of simplicity, we will refer to them by this name. The first material of this type to appear was Igepon A. It is an oleic acid ester of a sulfonated aliphatic compound. With further research, it was found possible to place another material of similar structure on the market, namely Igepon T. This is also a fatty acid ester but of a sulfonated aliphatic amido compound. The difference between the two will be discussed later.

Another method of removing the troublesome COOH group has been developed by transforming it into the harmless CH₂OH or alcohol group. This material may be sulfonated and from these investigations, we have the sulfonated higher alcohols which are on the market today in considerable variation depending on the number of C and H atoms of the original body started with. These changes are brought about by hydrogenation under high heat and pressure with the aid of catalysts.

Igepon A finds its greatest use in low temperature operations where it is necessary to have an efficient detergent, such as in wool scouring. The proper washing of raw wool is a very delicate procedure as everyone knows. Wool is chemically a complex combination of amino acids with a pH value of slightly below 5.00. The scouring bath mixture of soap and soda ash is, of course, on the alkaline side and should always be kept below pH of 11.0. By substituting part of the soap and soda ash with Igepon A, the wool may be perfectly cleaned without danger of injuring on account of too high pH. Even when the water supply is soft, the color of the wool is whiter and there is an added fluffiness to the stock.

It is not difficult to imagine the advantage of the Igepon, if the water supply is hard. Often the raw wool contains lime remaining from the process of removing it from the hide. With soda ash forming soaps from the fats and oils in the wool plus the soap used for cleaning the stock, we can appreciate the amount of insoluble soaps which will be occluded in the wool fiber. An addition of Igepon A to the scouring bath prevents this. It allows the soap to complete its cleansing duty instead of being lost as insoluble soaps and allows it to be rinsed much more thoroughly and quicker from the wool. The raw wool at the completion of the scouring operation is clean, white, fluffy and open in excellent condition for spinning or dyeing. The insoluble soaps remaining in the fibers have long been a source of trouble in the dyeing operation. The solving of this latter difficulty and the elimination of the possibility of loss of tensile strength

(Turn to Page 69)

CYCLOHEXANOL SOAPS

One of the exhibits at the British Industries Fair of interest to the soap-maker was a display of soaps containing methyl cyclohexanol. In view of its remarkable solvent, wetting-out and emulsifying powers, and the fact that it is non-toxic, non-explosive, non-inflammable, and does not attack metals, it is held surprising that this substance is not more commonly used in the laundry and dry-cleaning industries as well as in the scouring of silk and wool. The odor of the material, which resembles that of camphor or menthol, has been objected to, but this is entirely removed from goods of all types washed with soap containing it after proper rinsing and drying. A fairly large proportion of methyl cyclohexanol in a soap will prevent the precipitation of insoluble lime soap from hard water, such soap being dispersed or dissolved by the solvent. With the lower proportions, the precipitation of lime soap is lessened, though not prevented. Another useful property of cyclohexanol is that of retarding hydrolysis of soap. It also has a marked disinfectant power, its Rideal-Walker coefficient being 1.5, so that soaps in which it is present possess distinct insecticidal and germicidal properties without being toxic. *Perfumery and Essential Oil Rec.* March, 1934, p. 100.

In order to obtain higher sulfonation products than can be obtained by direct treatment of oils with sulfuric acid, the oil may be chlorinated first. Oils having a high content of unsaturated acids are treated with chlorine gas, preferably not above 30-40° C., to obtain the dichlorinated acids. Oils with a low unsaturated acid content are treated with sulfurous oxychloride to obtain the acid chlorides, which are separated by distillation at about 125-130° C. In either case, the derivative is saponified with caustic soda solution to obtain the corresponding di- or tri-hydroxy acid. The latter is treated with the theoretical amount of 66° Bé. sulfuric acid at a temperature not over 28-30° C. J. Abramovitch. *Tiba* 11, 303-11 (1933)

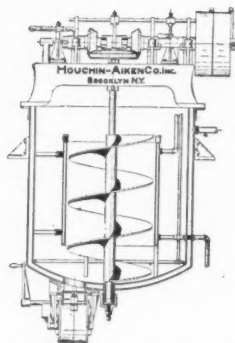
A new type of catalyst for the hydrogenation of oils is an alloy of nickel and aluminum treated for a short time with caustic soda. The latter acts on the aluminum and roughens the surface of the alloy, thus increasing its active area. The catalyst is not sensitive to the usual poisons such as hydrogen sulfide. Alloys containing 27 per cent of nickel show the highest activity. Hydrogenation temperatures of 200° C. and less can be employed with this catalyst. Bag Volokitin and Egunov. *Masloboino-Zhirovye Delo* 1933, No. 4, 16-17.

Unsaturated aliphatic acids or their esters are sulfonated by treatment with excess fuming sulfuric acid. The reaction may be brought about at a low temperature in a solvent such as carbon tetrachloride. Aqueous solutions of the products are stable to hard water and to boiling with mineral acid. I. G. Farbenind. A.-G. German Patent No. 591,196.

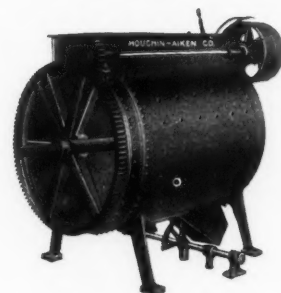
NEW and USED HOUCHIN SOAP MACHINERY



Perfection Crutcher
Sliding Gate Valve



Perfection Crutcher Cross
Section View Plunger
Type Valve



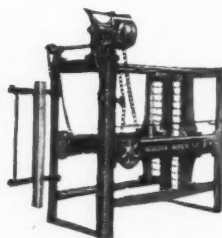
Horizontal Crutcher



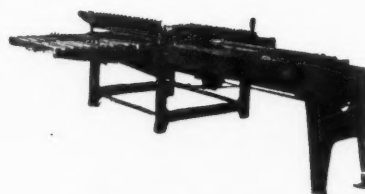
Empire State
Press



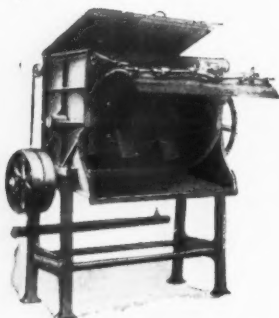
Standard
Soap Frame



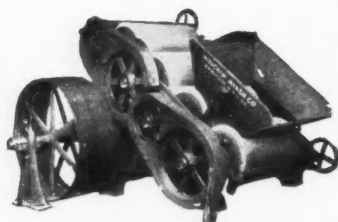
Automatic Power
Slabber



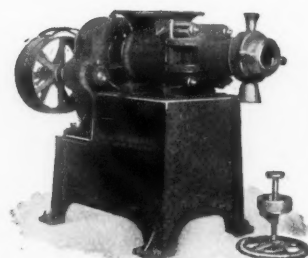
Automatic Power Cutting
Table



Ideal Amalgamator



4-Roll Mill
Mills built with 3 to 12 Chilled
Iron or Granite Rolls



Spur Gear 10" Screw Plodder
Plodders furnished with 2½"
to 12" screws.

Write Us For Information Regarding MILL-LESS Method for Making Toilet Soap
HOUCHIN MACHINERY CO., Inc.
FORMERLY HOUCHIN-AIKEN CO., INC.
HAWTHORNE, NEW JERSEY

SHAMPOO COMPOSITION

In the *Deutsche Parfümerie-Zeitung*, March 25, N. Welwart indicates the properties of an ideal shampoo. These are: 1. Good cleansing and foaming power; 2. Absence of free alkali or of alkali freed by hydrolysis; 3. Stability toward hard water; and 4. Ability to remove oil from the hair by emulsification without the removal of capillary oil. Soap or soap plus soda or potash contains free alkali which, the author states, attacks and injures the hair. Most preparations which would act to decrease hydrolytic splitting of soap in aqueous solution, also decrease foaming and cleansing action.

While the fatty alcohol sulfates meet the first three requirements, Herr Welwart believes that they fail to meet the last requirement, and that this failure counterbalances their advantages. He says oil removal from human hair by luke-warm aqueous solutions of fatty alcohol sulfates is so effective that even capillary oil is emulsified. "Completely fat-free hair loses its sheen and natural feel, and is weakened. A normal state can only be restored through the action of the sebaceous glands. Artificial treatment with oil does not bring about the same result."

These statements were based on a comparison in which human hair was washed with sodium lauryl sulfate in one case, and hair of a similar color washed in the ordinary way with soap in another case. A qualitative color test for fat (Sudan III) was made under the microscope on samples of hair washed by the two methods. Hair washed with lauryl sulfate gave a negative test for fat; hair washed with soap gave a positive test.

Herr Welwart also expresses the opinion that a mixture of soap and fatty alcohol sulfate would in no way solve the problem. Such a mixture would attack the hair because of the alkali freed from soap by hydrolysis, and would also completely emulsify the capillary oil of the hair. The only positive suggestion made is that a suitable colloid can be added to soap which will preserve its foaming and detergent action and at the same time increase its resistance to hard water.

Liquid soap may be made by an emulsification process in which the caustic potash solution is heated to 70-90° C. Palm kernel oil and peanut oil are likewise heated and added in a thin stream to the alkali with constant stirring. Stirring is continued for 2 to 3 hours and the vessel protected against loss of heat. After about 12 hours the product is tested for neutrality, using phenolphthalein to detect excess alkali, and a low temperature test for free fatty acid. Any necessary adjustments are made, such as the addition of alkali or sulfonated castor oil. A filler containing sugar, potash and potassium chloride is added to the soap. Kieselguhr or other clarifying agent is stirred in, and the whole allowed to stand for at least two weeks at a temperature not over 3° C. The mixture is filtered at the same temperature and suitably perfumed. A. Thieme. *Seifensieder-Ztg.* **61**, 199-200 (1934).

FURTHER WORK ON SOAP SUBSTITUTES

The present tendency in Germany is to replace soap by other materials to a considerable extent. Many attempts to find new soap substitutes have been made, but not all are successful. As a rule, modifying the chemical composition of the fats as source materials, is so complicated chemically that the resulting products are too expensive to compete with soap. Although mineral oil is both available and cheap, its sulfonation product does not resemble soap sufficiently to replace it. Spermaceti and wool fat are used to some extent as source material for new cleansing agents. They are changed to fatty acids and alcohols, sulfonated and saponified. A disadvantage of the wool-fat product is its yellow color and the fact that its solution does not give a large volume of foam.

Since these new products are still in a state of development, they are not as yet real competitors of soap. They are of interest as special cleansing agents, because in some cases they can be used where soap is not suitable. For example, soap cannot be used in the textile trade with many colored fabrics. Other detergent agents must be used here which have no harmful effect in subsequent dyeing operations. A sulfonated product of the type described can be used in solutions where soap would be salted out, or would be changed to insoluble soap by double decomposition. The success of these new washing agents depends on whether their source material can be made readily available at a suitable price. H.P. *Allgem. Oel-und Fell-Ztg.* **31**, 118-20 (1934).

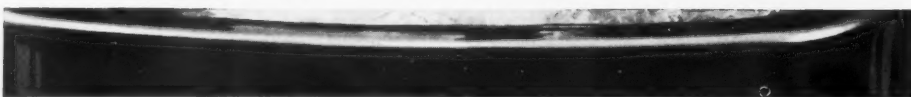
E. G. Better comments favorably in *Seifensieder-Zeitung* **61**, 145-6 (1934) on the use of concentrated alkali for saponification in the manufacture of soap. This method of soap-making was described by G. S. Tate in the December, 1933, issue of *Soap*. The use of strong alkali and a salt concentration of 6 to 8 per cent prevents the formation of a third phase, called by McBain "middle layer-soap." While the principles involved do not agree with the commonly accepted ideas of saponification, they do agree with some of the recent studies on the kinetics of the saponification process.

"Silk-soaps" contain lecithin, which is a normal constituent of human skin. While ordinary soaps tend to remove lecithin and leave the skin dry, soaps containing silk residues replace the lecithin and thus soften the skin. Lanolin present as excess fat in soap is not as complete a softening agent as lecithin plus suitable cholesterol esters. Cephalin is a good substitute for lecithin, due to its similarity in properties. Welwart. *Seifensieder-Ztg.* **61**, 146-7 (1934).

Taurocholic acid is present in bile in small amounts and is the active constituent in bile soaps. The soap substitute "Igepon T" of the German I. G. is the sodium salt of a high molecular-weight fatty acid derivative of taurine. Welwart. *Seifensieder-Ztg.* **60**, 936-7 (1933).



P. Q. SILICATES PROVED



THE consumer market has always been the proving ground for the value of P. Q. Silicated soaps and detergents. Popular brands since the early sixties have used our silicates of soda.

Lots of suds, quick thorough dirt removal with the proof of it in the clothes are results the "lady of the house" expects from soap. Give them to her in your soaps by using P. Q. Silicate.

Repeated triumphs place P. Q. Silicate at the top of the list. May we furnish you with the evidence of its protective influence on fiber and color, its prompt and complete dirt removal assistance?

Our detergency literature is available to you without obligation.



PHILADELPHIA QUARTZ COMPANY

General Offices and Laboratory: 125 S. Third Street, Philadelphia, Penna.

Chicago Sales Office: 205 W. Wacker Drive. Stocks in 65 cities.

Sold in Canada by NATIONAL SILICATES LTD., Toronto, Ontario.

WORKS: Chester, Pa., Kansas City, Kans., Baltimore, Md., Rahway, N. J., Anderson, Ind., St. Louis, Mo., Buffalo, N. Y., Utica, Ill.

ON PRODUCTS AND PROCESSES

A compounded soap powder is manufactured by mixing 2 or more components, at least one of which is a powder and one liquid. The dry component is strongly agitated by means of a mechanical stirring device while the liquids are added without heating, in the form of jets. H. Y. Dalström to Helios Kemisk-Tekniska Fabriker A.-B. Swedish Patent No. 78,523.

Fatty acid of 0° Titer reacts with a 5 per cent excess of concentrated sodium bicarbonate solution to give complete saponification at room temperature in about a week. After exposure for 24 hours to air, a neutral soap base shows 1 per cent free fatty acid. When an aqueous solution of neutral soap is blown with CO₂, 7 per cent of fatty acid is liberated. The changing fatty acid values are due to changes in the solubility of carbon dioxide with changing temperature and concentration of salt solution. C. Bergell, *Sieffensieder-Ztg.* **61**, 33-4 (1934).

In the cleaning of oil varnish films, it is necessary to avoid the use of alkaline salts such as sodium carbonate or trisodium phosphate. The presence of mineral oil in the cleaning mixture is also considered objectionable. To preserve this type of finish, wax is now being emulsified with soap solution. It is claimed that the wax fills the pores, thus repelling water and preserving the surface film. *Perfumery and Essential Oil Rec.* March, 1934, p. 101.

To obtain superfatted products, alcoholic ethers formed from di- or tri-hydric aliphatic alcohols and alkyl radicals of high molecular weight, and containing at least one free hydroxyl group, are added to soaps, creams and cosmetic preparations. An example of such an ether is monododecyl or monooctadecyl ether of glycerol. Henkel et Cie. French Patent No. 757,012.

A cleaning composition contains 420 grams of sodium carbonate, 210 grams of sodium bicarbonate, and 4.9 kilograms of soap cuttings in 22.5 liters of water. This is emulsified with 80 grams of petroleum and 80 grams of lubricating oil containing 10.2 kilograms of pulverized pumice in suspension. To this may be added 30 grams of bitter-almond oil and 10 grams of carmine. A. M. Kruse. Swedish Patent No. 78,917.

A fabric cleaner having high detergent power is obtained by adding spirit of turpentine and olein to a mixture of sodium perborate and ammonia, and adding the resultant emulsion to a soap solution. C. van Overstraeten. Belgian Patent No. 396,321.

Soap compositions are prepared by incorporating organic solvents into soaps with the aid of mineral oil, sulfonic acids or their salts or derivatives. The solvent may be emulsified in water with the aid of a sulfonic acid, and the emulsion mixed with soap. Or a solvent containing the sulfonic acids in solution may be mixed with soap. Stanislaw Pilat. Austrian Patent No. 135,828.

Oil from black grape seeds from southern Bessarabia has been investigated. The oil is obtained by hot pressing of the seeds, and has a dark green color and a pleasant taste and odor. Its acid number is 4.72, saponification number 184.4, ester number 179.68, and iodine number 123.7. Its composition is 31.00 per cent oleic acid, 11.78 hydroxy acid, 36.03% —linoleic acid, 7.71% —linoleic acid, 0.14% —linolenic acid, 2.16 stearic acid, 6.17 palmitic acid, 4.04 glycerine, and 0.59 per cent unsaponifiable matter. C. Otin and M. Dima. *Allgem. Oel-und Fett-Ztg.* **31**, 107-15 (1934).

Unsaturated aliphatic alcohols having at least 8 and not more than 20 carbon atoms, such as oelic alcohol, are esterified with sulfuric acid and then halogenated. Used with sodium carbonate, the product is an excellent cleansing agent for washing wool. Deutsche Hydrierwerke A.-G. British Patent No. 400,986.

Palm oil neutralized with caustic soda in the usual way may be decolorized with fuller's earth. Addition of 3 to 4 per cent of the fuller's earth causes 99.2 to 99.8 per cent decolorization. In order not to affect the taste, the bleaching temperature of the neutralized oil should not go over 90-95° C. Treatment for 20 minutes is sufficient. The use of activated carbon is of no advantage. Crude palm oil, that is unneutralized oil, is bleached in the same way. Treatment of fuller's earth with concentrated sulfuric acid before using the earth as a decolorizing agent, possesses no practical advantage, and may cause injury to the apparatus. O. Eckart. *Sieffensieder-Ztg.* **61**, 149-151 (1934).

At the British Industries Fair a well known British firm of chemical manufacturers made a bold bid for the development of trisodium phosphate as a detergent. Its use in Great Britain has not made the headway that it has in America and in Germany. The exhibit showed a variety of forms, from crystalline Na₃PO₄·12H₂O with nearly 57 per cent of water of crystallization to the anhydrous powder. It also appeared as thin flakes.

The Manufacturing CHEMIST ●

PHARMACEUTICAL COSMETIC
& PERFUMERY TRADE JOURNAL

*Embracing the Manufacture of
Drugs, Pharmaceuticals, Cosmetics,
Toilet Preparations, Photographic
Materials, Soaps, Fine Chemicals,
Essential Oils, Perfumes, Dental
Preparations, Patent Foods and
Machines in Liquid, Powder, Paste,
Pill and Tablets, Polishes, Anti-
septics, Germicides.*

SOME RECENT ARTICLES

Wood Polishes, by A. B. Searle.

The Removal of Superfluous Hair, by Dr. Albert
Ellmer.

Essential Oils in India and Ceylon—A Review.

The Fatty Alcohols and their Sulphonated Products.

Metal Polishes, by Alfred B. Searle.

Colour Combinations in Cosmetics, by H. Stanley
Redgrove.

The Malaria Scourge, by Dr. Konrad Schulze.

New Perfumes and Cosmetics.

Recent Advances in Anaesthesia, by Dr. Konrad
Schulze.

The Manufacture of Vanishing Creams, by Thomas
McLachlan.

Medicinal Hair Preparations, by Frank H. Sedgwick.

Loose Powder Containers, by H. Stanley Redgrove.

Beside the
GRIFFIN.



LEONARD HILL LIMITED

231 STRAND

LONDON. W. C. 2.

(Opposite the Law Courts)

ENGLAND

Publishers of

FOOD MANUFACTURE, PAINT MANUFACTURE, FOOD INDUSTRIES
MANUAL, RUBBER INFORMATION, CHEMICAL ENGINEERING &
CHEMICAL CATALOGUE.

POWDERED SHAMPOO MIXTURES

Powdered shampoos can be prepared by drying the soap stock as usual and mixing to a fine powder with other ingredients, according to the formulas:

1. 60 per cent soap powder
10 per cent coconut oil soap powder
10 per cent disodium phosphate
10 per cent sodium bicarbonate
10 per cent borax
2. 50 per cent soap powder
15 per cent sodium lauryl sulfate
5 per cent sodium bicarbonate
30 per cent borax
3. 65 per cent soap powder
5 per cent sodium cetyl-sulfonate
10 per cent borax
15 per cent sodium bicarbonate
5 per cent trisodium phosphate (powd.)

A second method of preparation is to add the ingredients to the soap mixture before it is sent to the cooling press, as with the following:

1. 75 per cent soap from the kettle
3 per cent protein or gall soap
12 per cent borax
10 per cent sodium bicarbonate
2. 60 per cent soap
10 per cent sodium lauryl sulfate
20 per cent sodium bicarbonate
10 per cent borax

The second method gives better results in general. H. Janistyn. *Seifensieder-Ztg.* **61**, 164-5 (1934).

—o—

When an unsaturated fat whose acids belong to the C_{18} series is fully hydrogenated, it is possible to obtain a series of the less soluble fractions by systematic fractional crystallization. These fractions contain all the tristearin present mixed only with palmito-distearins. From the saponification numbers of the fractions, it is possible to estimate the proportion of tristearin in the hardened fat and of the glycerides in the original oil. This applies to oils which contain only the unsaturated acids, oleic, linoleic, and linolenic. Cottonseed oil appears to consist of nearly 60 per cent of glycerides containing 1 palmityl radical and 2 unsaturated C_{18} groups: 15 per cent of dipalmito-olein or dipalmito-linolein; the remainder being unsaturated glycerides. In olive oil, the proportion of completely unsaturated glycerides is less than 7 per cent of the whole. Linoleic forms nearly 10 per cent of the mixed unsaturated acids, so that it is probable that about 20 per cent of the oil consists of mixed oleolinoleins. Triolein is about 50 per cent of the total. T. P. Hilditch and E. C. Jones. *J. Soc. Chem. Ind.* **53**, 13-21T (1934).

RANCIDITY CAUSES

Rancidity and its causes are discussed at length by G. Knigge in *Seifensieder-Zeitung* **61**, 123-4 (1934). He points out that various workers have suggested a number of causes of rancidity, among them the presence of foreign matter which acts as a ferment, water, air, micro-organisms, oxidation, light, traces of metals. Even up to 1920 some people considered the production of rancidity nothing more than the splitting of fat into glycerine and free fatty acids. This is not the case. It is now known that fat can contain much free fatty acid without being rancid, and neutral fat containing no free fatty acid may be rancid.

In the first place, to prevent soap from becoming rancid, one must start with fat free from rancidity, and saponify that fat completely. Any appreciable amount of unsaponified fat in the soap will sooner or later become rancid. It is even recommended that a soap as it comes fresh from the kettle, should contain 0.25 per cent of free alkali, as insurance against the development of rancidity. This alkalinity will be reduced on contact with air, since it forms soda ash by reacting with carbon dioxide. Even if this did not occur, the actual amount of free alkali from this source would be very small in actual washing operations. A 0.3 per cent solution of a soap containing 64 per cent of fatty acid would have a concentration of only 0.0012 per cent free alkali, from actual dilution of the original amount. While negligible in use, 0.25 per cent of free alkali in the soap is of great advantage as a protection against rancidity.

Sometimes injurious materials are introduced with perfume or fixative. Also if warm-pressed oils are used, foreign material may accompany the oil and have a harmful effect. Cold-pressed oils are much safer. Traces of metals in soap often catalyze decomposition. Those most harmful in the order named, are copper, cobalt, iron, nickel, manganese, mercury, lead and tin. This list may be enlarged as further work is done. A difference of opinion exists as to the effect of aluminum. Some refuse to use it in the manufacture of floating soap and use silicon instead. Iron is so often present that it is advisable to remove it with a reducing agent. Sodium thiosulfate is highly recommended for this purpose, and as a general immunizer against rancidity. Its action with iron produces iron sulfide, which settles out as a precipitate. The problem of protection against rancidity is far from solved.

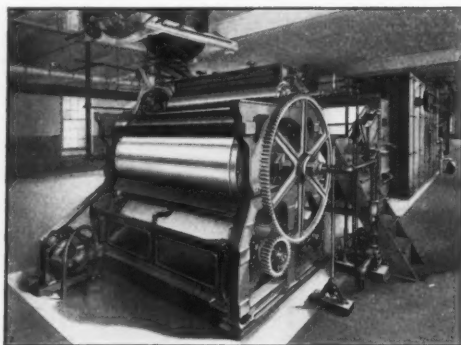
—o—

Iodine number determined on various drying oils, non-drying oils, fats and fatty acids by both the Hanus method and Kaufmann's bromometric method showed good agreement between the two methods in all cases. N. N. Godbole, Amarendra and Urba Datt, *Fettchem, Unschau* **41**, 2-3 (1934).

—o—

A detergent composition is made by adding benzine or other suitable organic solvent to Turkey-red oil or other sulfonated oil. R. Thoen. Belgian Patent No. 398,386.

PRODUCING THE PERFECT CHIP FOR ALL SOAP MAKING NEEDS



● New Type Proctor Chip Soap System producing extremely thin chips of textile soap in new plant of Original Bradford Soap Co., River Point, R. I.

● The New Proctor Chip Soap System produces the thinnest of chips . . . chips perfectly formed in long ribbons, evenly thin from edge to edge, uniformly dried free from hard overdried particles or underdried spots. These chips make cleaner, whiter, quicker-dissolving laundry flakes. They make smooth-surfaced, clear-colored toilet cakes. They give quicker, better milling and plodding. They give quicker, easier grinding into powdered soaps . . . with less loss in dust. New high speed chilling roll . . . spray-cooled, pump-drained, precision-ground, smooth-surfaced. New drying machine . . . with revolutionary improvements in principal details of design . . . more efficient, more economical, cleaner in operation. Write for your copy of our new descriptive Bulletin No. 72.

PROCTOR & SCHWARTZ, INC.

• SEVENTH ST. & TABOR ROAD • PHILADELPHIA •

Retire That Obsolete Equipment

HUBER Mixer

This efficient machine will thoroughly mix any dry products. Admirable for preparation of cleaning powders, bath salts, roach powder, etc.



HUBER All-Purpose Perfection Crutcher

For the manufacture of hand soaps, paste soaps, pine scrub soaps, liquid soap base, polishes, etc. Belt, engine or direct motor drive.



For making para blocks, our hand lever press is the sturdiest and most efficient on the market

HUBER MACHINE CO.

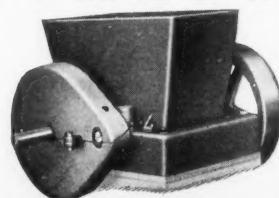
259 46th Street

Brooklyn, N. Y.

Makers of Good Soap Machinery for Forty Years

BLANCHARD

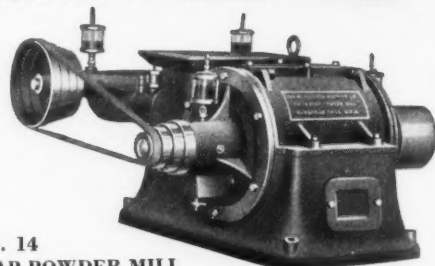
SOAP POWDER MACHINERY



NO. 9 CRUSHER



NO. 10-A SOAP POWDER MILL



NO. 14
SOAP POWDER MILL

WRITE FOR OUR DESCRIPTIVE CIRCULARS

THE BLANCHARD MACHINE COMPANY
14 STATE ST. CAMBRIDGE, MASS., U. S. A.

NEW EMULSIFYING AGENT

A new cold-emulsifier for producing emulsions free from soap, has been announced by General Dyestuff Corporation. The product is called Emulphor A Oil-Soluble. It is an oily liquid which can be mixed with most technical oils. It acts itself as a fat, making possible the utilization of oils which cannot be saponified. The manufacturers state that no special precautions are necessary in the production of emulsions, as these are formed without difficulty, even in hard water, without special equipment and at ordinary temperatures. The new product is recommended for emulsifying liquid fatty oils, such as olive oil, peanut oil, rape seed oil, neats-foot oil, castor oil, and mineral oil. It is not suited for use with fatty acids, mixtures of neutral oils and fatty acids, solid fats, paraffin or other waxes. *Textile World* 84, 685 (1934).

Crude wool fat is refined and rendered odorless by treatment with hot dilute sulfuric acid, washing with water, and extraction with alcohol to remove free fatty acids. The residue is bleached with a chlorine bleaching agent, washed with hot water, and dried, when it is suitable for soap making. Eugen Better and Felix Munk. German Patent No. 588,951.

A luting for metal containers for oil, fats, etc., consists of a mixture of finely powdered cereal meal and a highly concentrated or saturated aqueous solution of hygroscopic salts, such as magnesium or calcium chloride. Paul Fasshender. German Patent No. 589,568.

Soft soap is saponified by steam-heating in an autoclave equipped with a mechanical stirrer. Camille De-guide. French Patent No. 756,883.

DETERGENTS—OLD AND NEW

(From Page 61)

due to high pH of the scouring bath, places the Igepon A as a specific for fine wool scouring.

Igepon T is more appropriate for use with higher temperatures and hence finds more of a place in the cotton, rayon and silk industries where the general processes involve higher temperatures. It has excellent stability against acid and alkali even at the boil. Igepon T is also a very efficient penetrant as well as cleansing agent and detergent. In a bleaching operation, its stability to lime enables the Igepon T to be used in the bleaching powder liquors. It is also stable in sodium hypochlorite baths. The natural softness of the fiber is retained and the uniformity of the bleach results in even dyeing. A soft, smooth handle to the material is also produced.

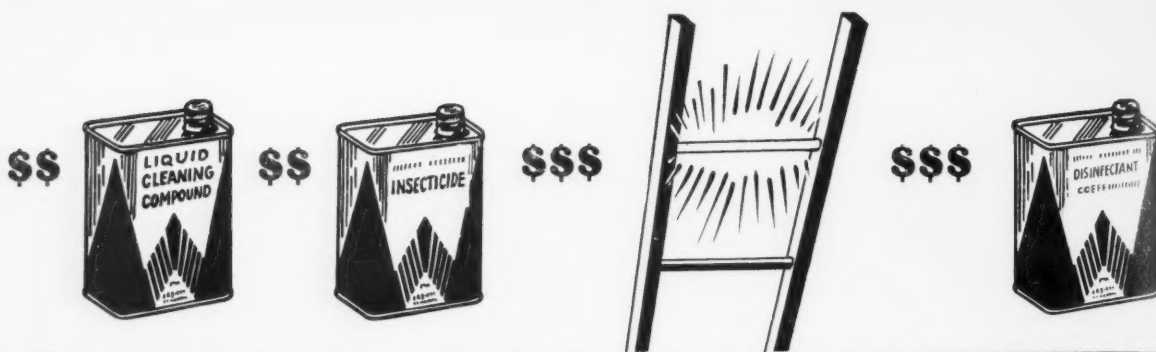
In kier boiling, spots caused by lime soaps are eliminated by the addition of small amounts of Igepon T to the liquor. The concentration of alkali, length of boil and pressure may all be reduced, allowing less harm to the fiber. For dyeing cotton and rayon the wetting and leveling action of the Igepon T is of great assistance

and even the most delicate shades are obtained with ease. The material may be given a short preliminary cleansing with the Igepon T or it may be added direct to the dyebath. With the vat dyestuffs, the Igepon T is added direct to the bath. Its stability to acids, salts and oxidizing agents allows the Igepon T to be used with acetic or formic acid and the usual oxidizing agents. With the Naphtol colors, the shades are more brilliant and faster to rubbing.

Igepon T is an excellent addition to any finishing bath leaving a soft, smooth finish to the material. Often when soap is left on the material as a finishing aid, a disagreeable rancid odor develops. The insoluble hard water soaps deposited within the fiber cause a harshness and sometimes gummy feel. In the printing trade, Igepon T is used with or without soap for removing the different salts and thickening agents in the after-treatment. A non-alkali cleansing agent is most desirable in the treatment of all but vat dyes and naphtol products. Again the danger is eliminated of insoluble metallic soaps being formed from the salts used in printing operations. The color prints are brighter and the white discharges are much clearer.

Igepon is an excellent addition to soap and mixtures of the two are in regular use for purposes where a small quantity will improve the usefulness of the soap. It is not the purpose of the Igepons or sulfonated alcohol type of material, to displace soap. This is economically impossible at present-day prices. Soap has an important place in the home and industry, and always will have. The ultimate goal to be achieved with these new materials is the point at which they will render the utmost service at the minimum cost. They will be used without the addition of soaps for washing the fine silks and woolsens, and in varying proportions with soap and mild alkali in hard water districts for general laundry work. A laundry using hard water may find that the cost of using a small amount of Igepon in the wash wheel, will more than be compensated by the amount of soap saved. In addition the clothes will not contain the insoluble hard water scum which tend to cause white material to be gray and develop the disagreeable soapy odor on standing. It will also be found that less rinse water will be required and the bleach will be much more efficient.

As an example where mixtures with soap are very effective, we might mention the rug cleaning plant in hard water districts. A small amount of Igepon incorporated in the soap jelly prevents the formation of insoluble soaps which are impossible to remove from the wool fiber. Rugs containing this insoluble deposit become soiled much quicker and after a time develop a rancid odor. The colors are also dull and the wool fibers are often stiff instead of being light and open. Less rinse water is used in removing the soap suds from the rug. The same experience takes place in the washing of blankets as with rugs. There is no danger of shrinkage, the colors are bright, the "feel" of the blanket is soft, fluffy and there is an absence of disagreeable soap odor.



head for the last round UP!

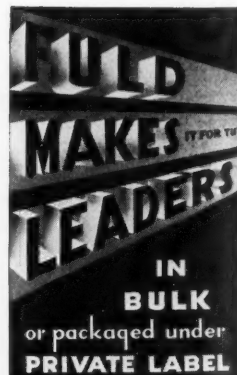


Git a long,—long PROFIT!

It's private branding time on the Sanitary Supply ranch. And the branding iron is sizzling with new labels that speak for the high quality of Fuld Brothers' products.

With the Fuld line, you'll lasso bigger summer profits on PINE CLEANER, DISINFECTANTS and INSECTICIDES.

Write for prices and samples.



FULD BROS. INC.

2310 FREDERICK AVE., BALTIMORE

SANITARY PRODUCTS

A Section of "SOAP" Dealing with

INSECTICIDES • DISINFECTANTS • EXTERMINATING
FLOOR PRODUCTS • SANITARY SUPPLIES • MOTH PRODUCTS



**"KILLING POWER—
THAT'S THE THING"**

PYRETHRUM PRODUCTS

To those sincerely interested in putting out high grade insecticides that will bring repeat sales and reflect credit on the reputation of the manufacturer POWCO BRAND Pyrethrum Products offer the utmost in value.

The killing power value of POWCO BRAND Pyrethrum Products is determined on the undeniably sound basis of actual tests on live insects which after all is what insecticides are supposed to do—kill insects.

Our control procedure is under the direct supervision of qualified chemists and a qualified entomologist, thus assuring you real and substantial protection in the manufacture of your finished product.

There is no substitute for toxicity and that is precisely what POWCO BRAND Pyrethrum Products and service guarantee to you.

JOHN POWELL & CO., INC.

Specialists in Pyrethrum Products

114 E. 32nd St.

New York, N. Y.

PACKAGES LEAD

LIVES



CONTINENTAL has spent 29 years developing an organization which is staffed and equipped to provide tin containers that excel in every phase of package creation—that will contain, protect, sell and serve your products best.

Whenever you have a packaging problem you will find that Continental's design, research and development departments are geared to render valuable assistance.



1 *At the Factory*
They must fill and handle economically.



2 *At the Store*
They must stack easily, display effectively and sell.



3 *In the Home*
They must suit consumer's convenience.

CONTINENTAL CAN COMPANY

NEW YORK

CHICAGO

SAN FRANCISCO

FIVE MORE



Phillips Petroleum Company,
Bartlesville, Oklahoma
Skelly Oil Company, Tulsa
Derris, Incorporated, New York City
Union Oil Company of California,
Los Angeles
Wizard, Incorporated, Chicago

MAJOR COMPANIES
HAVE ADOPTED THE

VAUGHAN *Continuous Sprayer*

"U. S. and Foreign Patents Pending"

The year 1934 will record an unusually successful season for those manufacturers and distributors of quality insecticides whose products are presented to the public in the most efficient sprayer. The Vaughan No-Drip Sprayer, gives the finest atomization with large volume and, therefore, is much more effective in its killing ability.

There can be only one *best* sprayer, so be sure your product is given the advantages of the finest of them all—the Vaughan Continuous.

ONE PIECE BRASS HEAD AND NOZZLE

Valve and liquid tube also of brass. These vital parts cannot rust, assuring satisfactory service.

NOZZLE IS NOT ADJUSTABLE

Nothing to confuse the user.

CONTINUOUS SPRAY

Assures adequate volume and greater efficiency.

REMOVABLE LIQUID TUBE

Easy to clean if ever necessary.

EXTRA HEAVY CONSTRUCTION

Prime tin of 107 pound weight.

FULL PINT DETACHABLE CONTAINER

Screws to the pump. Extra caps for the container can be supplied so that the insecticide can be packed in the sprayer cans, thereby saving the cost of one extra can on a combination sale.

SPECIAL LITHOGRAPHING

Sprayers and containers can be supplied in any special lithographed design.

● Write for prices and complete information. ●

J. A. VAUGHAN

MANUFACTURING COMPANY

34 N. Madison Street

Tulsa, Oklahoma

IN 1930

THIS WAS



1930



1931

AND HERE IS PROOF

IN 1930, we were *wrong* when we thought we had tested Pyroicide 20 in every way possible. There was one test *we* could not make. Mrs. Consumer was the only person who could give us the answer.

We had to sell Pyroicide 20 to a manufacturer of household sprays. He had to manufacture a spray using Pyroicide 20 and sell it to a housewife. She had to take that fly spray home and actually kill flies with it. After purchasing once she had to return and buy—and buy again. Well, we'll have to admit we hadn't made that test in 1930—**BUT WE HAVE MADE IT NOW** and we have the astonishing results.

Maybe it isn't a scientific test in the exact sense of the word, but it's an important test and a significant one, for it can be measured in gallons, in sales figures, and on a cash register.

What did this test show? What were the actual results from year to year—Here they are:

In 1930 sales of Pyroicide 20 were four times as great as they were in 1929.

In 1931 they doubled the high mark of 1930.

In 1932 when the total sale of insecticides throughout the country fell off from 30 to 50 percent, the sale of Pyroicide 20 *actually increased 50 per cent.*

UNIFORM KILLING POWER

EXPECTED



1932



1933

IT HAS HAPPENED

In 1933 there was a substantial sales increase over the high point of 1932.

There is the conclusive, undeniable story. There is no longer any "guess work" here. It can mean but one thing—that every year more and more housewives are discovering that sprays made from Pyrocide 20 do the job. They are careful buyers and harsh judges, yet, *they are the ones* who have proved that we are right.

We knew we had an effective extract of pyrethrum that stood chemical and biological tests. But we hadn't tested it in the hands of the public. We have now. This is the final test

for Pyrocide 20. This is the test we have made for the past four years.

For the manufacturer of household insecticides, it is convincing proof that when Pyrocide 20 is used his spray will sell and sell again.

Pyrocide 20 is shipped in steel drums containing 15, 30, and 53 gallons from warehouse stocks in New York, Los Angeles, Minneapolis, and several foreign cities. We also supply pyrethrum flowers of known pyrethrin content in whole, ground, or powdered form.

McLAUGHLIN GORMLEY KING COMPANY
MINNEAPOLIS, MINNESOTA

PYROCID 20

STANDARDIZED EXTRACT OF PYRETHRUM FLOWERS

**PICTURE
YOUR PRODUCT
IN THIS OnIzed STOCK MOLD CONTAINER**

**WITH DISTINCTIVE LABELING
IT COULD LOOK LIKE THIS**



● Actual and potential customers appreciate the convenience and beauty of modern packaging. It is all-important to select the *right* container. OnIzed stock-mold containers are smartly styled—made of clear, flawless glass—thoroughly annealed by the special OnIzed method—and include a correct OnIzed stock-mold design for every purpose. OnIzed stock-mold containers are *right*—with distinctive label treatment and proper closure, they win new friends and increased profits. The Duo-Oval shown above will be manufactured to the special order of those whose requirements justify minimum run production. Write us about your packaging problems.

OWENS-ILLINOIS GLASS
COMPANY, TOLEDO, OHIO.



OnIzed
PHARMACEUTICAL AND
PROPRIETARY WARE

Owens-Illinois

Kill Kerosene Smell with KERODOR . . .
the low cost, non-staining reodorant

You can kill that kerosene smell in your fly spray. KERODOR NO. 2 completely overcomes all traces of unpleasant smell, and leaves a fragrant, flowery odor after the insecticide has been used. KERODOR NO. 2 costs only \$3.00 a pound . . . and you need use only $\frac{1}{4}$ ounce to a gallon of fly spray.

Or, if you prefer, you can modify the kerosene smell with KERODOR NO. 1—a reodorant which practically eliminates the unpleasant smell, leaving just enough trace to maintain consumer confidence in your product. . . . KERODOR NO. 1 costs only \$1.50 a pound—and a little goes a long way.

Both KERODOR NO. 1 and KERODOR NO. 2 are completely soluble, non-staining, and will not affect the potency of your formula in any way. . . . Write today for full information on this safe, sure way to increase your insecticide sales.

GIVAUDAN

DE LA W A N N A , I N C .

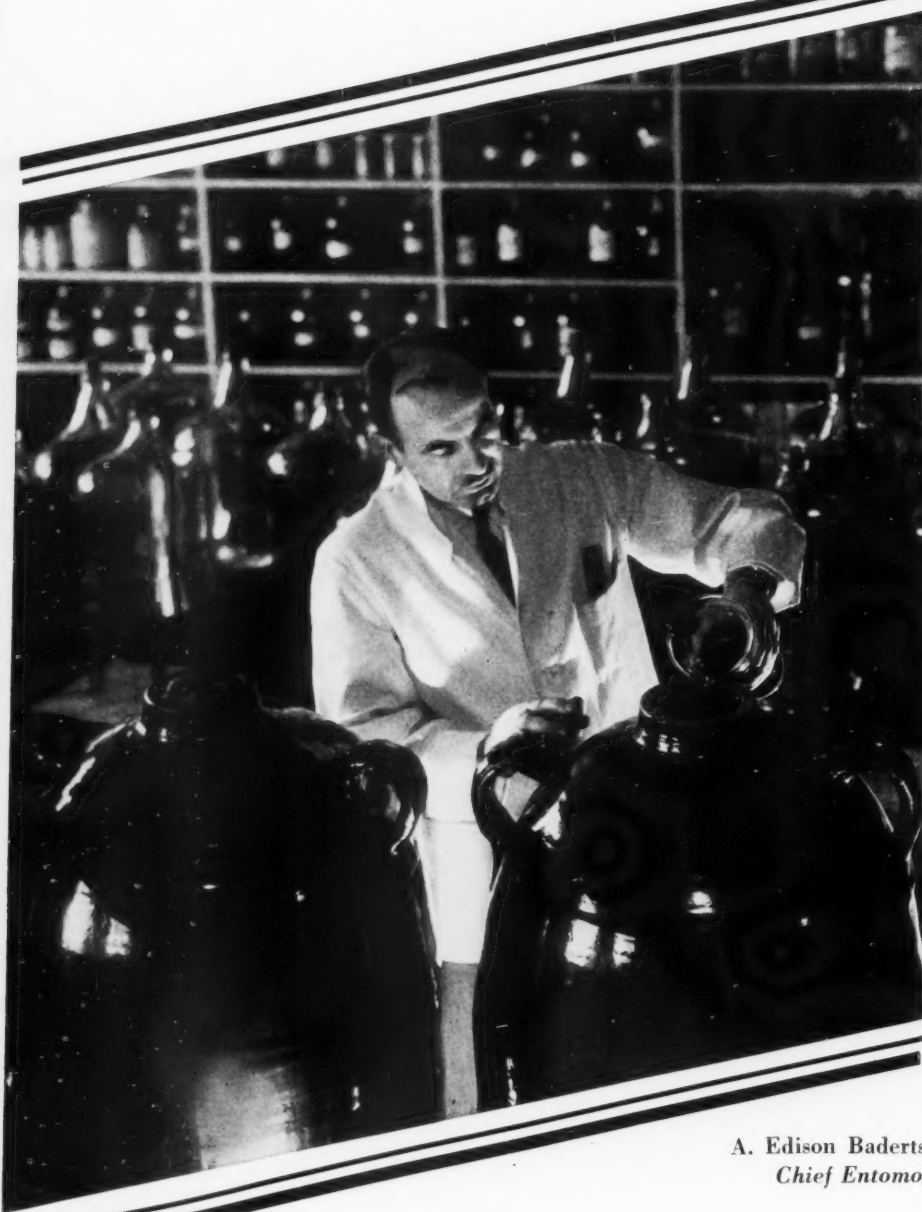
80 Fifth Avenue

New York, N. Y.

Branch Offices: Philadelphia, Los Angeles, Atlanta, Cincinnati, Detroit, Dallas, Baltimore, New Orleans, Chicago, San Francisco, Montreal, Havana

PYRETHROL 20

REGISTERED U. S. PATENT OFFICE



A. Edison Badertscher,
Chief Entomologist

PRODUCTS

PYRETHROL 20

•

PYRETHROL 5

•

PYRETHRUM
ROTENONE
CONCENTRATE

•

BULK
PYRETHRUM

•

DERRIS
DERIVATIVES

•

Derris Resinate

•

Derris Extract

•

Derris Powder

•

Rotenone Crystals

To manufacture the best has always been the fundamental policy of McCormick & Company. Because of this no single item within the scope of buying, manufacturing and selling is ever slighted.

THE HOUSE OF McCORMICK

Standardized Pyrethrum and Derris Liquid and Dust Insecticides

• • • **BALTIMORE, MD., U. S. A.** • • •



STAINLESS CATTLE SPRAY

A light colored liquid for spraying cattle to rid them of annoying flies and insects. Contains the active principle of pyrethrum. Will not stain, blister or burn, and has no disagreeable odor. A popular product with farmers and dairymen. Supplied in bulk to the distributing trade only.

PES-TOX

An efficient liquid household insecticide of the pyrethrum type, pleasantly scented. Surpasses in effectiveness the standard of the National Association of Insecticide and Disinfectant Manufacturers. Each lot carefully controlled by the Peet - Grady method. Supplied in bulk for distributors to resell under their own trade-names. Also suppliers of pyrethrum concentrate.



PINE OIL DISINFECTANTS

made from pure steam-distilled pine oil, and agreeable in odor and dilute with water to form rich, milk-white emulsions.

HIPINE, made according to the formula of the Hygienic Laboratory has a minimum phenol coefficient of four.

ORPINE, prepared from slightly different ingredients, has a minimum coefficient of three.

CLEARPINE is a specially refined product, very light in color, and has a minimum phenol coefficient of four.

All are high-grade products, reasonably priced. Every lot chemically controlled and standardized. Supplied only in bulk to the distributing trade for resale under their own names and labels.



BAIRD & McGUIRE, Inc.
HOLBROOK, MASS. ST. LOUIS, MO.

New York City and New Jersey Representative
EASTERN STATES SUPPLY CO., 136 Liberty Street, New York, N. Y.
Phone: WOrth 2-3143

The **NEW KILLER--B-280** **CHAMPION BASE HYDROCARBON OIL ...**



*-- will DEFEND his
 TITLE against any
 and all FLIES etc.*

Notice the remarkable
 odor before and after.

Notice to Manufactur-
 ers: We manufacture
 Base Hydrocarbon Oil
 only. We are not manu-
 facturers of fly sprays.

B-280 is a product of Research. (When in Chicago visit our Research Laboratories at 3921 E. Ravenswood Avenue —15 minutes from the "Loop") (4500 square feet of floor space devoted to Petroleum Research for Industries).

Ask the Cleaning Industry about "STOD-SOL;" the Rubber Industry about "RUB-SOL" or "PETROBENZOL;" the Lacquer Industry about "TROLUOIL;" the Varnish Industry about "APCOTHINNER," they are all Internationally known "Industrial Naphthas" manufactured by this company. We now enter your Industry and offer "B-280" for your approval.

For technical data or samples, address the company at 3921 East Ravenswood Avenue, Chicago, Ill.

ANDERSON-PRICHARD OIL CORPORATION



OKLAHOMA CITY, OKLA.

BRANCHES IN ALL PRINCIPAL CITIES

FOR THE PROTECTION OF THE PUBLIC

Send General Chemical Company
your inquiries also for
other Heavy Chemicals, including
TRISODIUM PHOSPHATE
SODIUM SILICATE
ACETIC ACID
etc., etc.

SODIUM FLUORIDE

Colored OFFICIAL NILE BLUE

THE standardization of Sodium Fluoride Colored Official Nile Blue has effectively done away with hazard to the public. No one will mistake the blue tinted powder for a food ingredient. . . . Its potency as an exterminating agent maintains it as the dominant insecticide for the commercial and household destruction of insect pests. . . . This General Chemical Company product excels in free-flowing quality and fluffiness.

*Your inquiry, addressed to the nearest office,
will receive prompt and intelligent attention.*

GENERAL CHEMICAL COMPANY
40 Rector Street • New York, N. Y.

Buffalo	Chicago	Cleveland	Denver	Los Angeles
Philadelphia	Pittsburgh	Providence	San Francisco	St. Louis
Atlanta	Baltimore	Boston	Charlotte	Kansas City
	Minneapolis	Seattle		

In Canada—The Nichols Chemical Co., Ltd., Montreal, Toronto

*Free flowing
and Fluffy*



Reg. U.S.
Pat. Off.

Also **BAKER & ADAMSON C.P. ACIDS... REAGENTS AND FINE CHEMICALS**

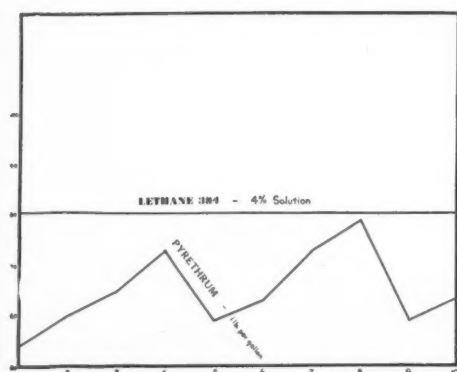


PURE!
UNIFORM!
DEPENDABLE!

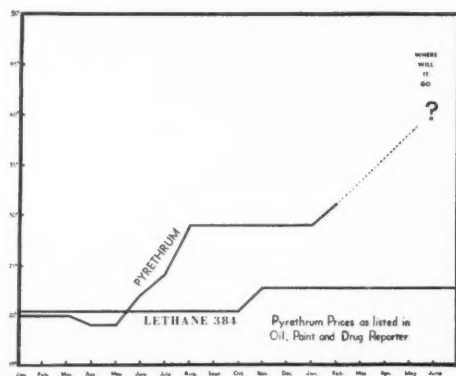
There are two points of prime importance to you in the manufacture of your insecticide

1. Will it do what you claim?
2. What does it cost?

These two charts tell the whole story



Killing power of Comparable Sprays



Cost of insecticidal principle per gallon of spray

USE LETHANE 384!

RÖHM & HAAS Co., Inc.

222 West Washington Square • Philadelphia, Pa.

DISCOVERED AND RECOMMENDED



Shades of Sherlock Holmes

SOMETHING NEW !!

AN addition to MM&R KEROSPRAY PRODUCTS that completely submerges kerosene odors. . . . An amazing improvement in the perfuming of your fly spray which will completely revolutionize its sales possibilities!

Complete coverage at a minimum cost. Now available in the MM&R KEROSPRAY BOUQUET line, always so popular with the trade. We recommend:

Oil Kerospray Bouquet MM&R (IMPROVED TYPE)

No. 801 No. 802 No. 803 No. 804 No. 805 No. 806

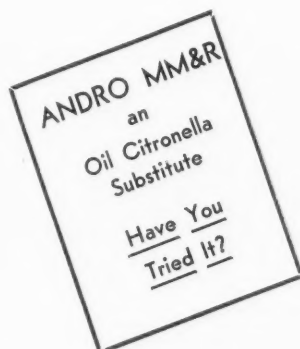
It will not obligate you to send for a sample.

MAGNUS, MABEE & REYNARD, INC.

Established 1895

32 CLIFF STREET NEW YORK

Aromatic Chemicals—Essential Oils—Perfume Materials



"LINKS THE MARKET WITH THE MANUFACTURER"

New! the 1934 **SOAP BLUE BOOK**

CATALOG - BUYER'S GUIDE - TECHNICAL REFERENCE



The new SOAP BLUE BOOK has been mailed to all SOAP subscribers. It has been enlarged considerably to accommodate many new features designed to increase its value to manufacturers and distributors of soaps and sanitary products. The new section described in the following paragraph will make the new SOAP BLUE BOOK a valuable addition to any technical and business library.

BUSINESS AND TECHNICAL REFERENCE SECTION

THE SOAP CODE—a complete text of the Code of Fair Competition for the Soap and Glycerin Industry. **FEDERAL SPECIFICATIONS** for eleven soaps and cleansers and for glycerin. **COLORING SOAPS AND SANITARY PRODUCTS**—a review of the principal types of coloring materials with practical suggestions for coloring seventeen of the most important soaps and sanitary specialties. **PEET-GRADY TEST FOR HOUSEHOLD INSECTICIDES**—the complete official N. A. I. D. M. test for determining the effectiveness of insecticide sprays. **SOAP PERFUMING**—a review of the principal types of soap perfuming materials with complete tables describing the action of each as a soap perfume. **THE F. D. A. TEST FOR DISINFECTANTS AND ANTISEPTICS**—complete testing methods prescribed by the Food & Drug Administration and official with the N. A. I. D. M.

BUYER'S GUIDE

A complete list of all raw materials, containers, equipment, packaging materials, etc., bought by manufacturers and distributors of soaps and sanitary products with leading sources of supply for each.

CATALOG SECTION

Condensed catalogs of sixty of the leading concerns supplying the soap and sanitary product industries.

FREE TO "SOAP" SUBSCRIBERS!

The new SOAP BLUE BOOK has only been mailed to paid subscribers. If you do not subscribe, a subscription should be entered promptly to insure receiving a copy. The annual subscription charge, including the BLUE BOOK, is \$3.00. The BLUE BOOK alone costs \$2.00.

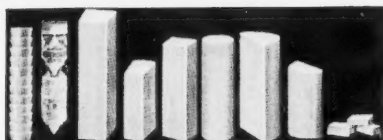
MACNAIR-DORLAND COMPANY INC.

136 LIBERTY STREET

NEW YORK, N. Y.

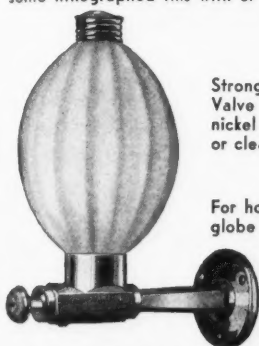
BIG
profits

WITH THIS PROVEN LINE OF SANITARY SPECIALTIES



AIR PURIFYING BLOCS

We are the pioneers and original patentees of air conditioning blocs. Hard uniformly perfumed blocs made of 100% para and finest essential oils. In sizes and shapes to fit any containers. Colors and fragrances to meet current demand. Packed for you under your private label if desired. Also Urinal Blocettes individually wrapped in cellophane and Deodorizing Crystals in bulk or packed in handsome lithographed tins with or without our name.



SOAPERIOR
Model 121

Also other styles wall and basin type Dispensers, Gravity Feed Equipment, Portable and Elbow-Operated Dispensers. Send for catalog.

SOAPERIOR LIQUID SOAP DISPENSER (Push-In Type)

Strong attractive leak-proof dispenser embodying patented "SOAPERIOR" Hexagon Valve features. Heavy one-piece bracket of non-corrosive white metal chrome or nickel plated. Non-removable 18 oz. capacity fluted glass globe of white opalescent or clear crystal glass (also jade green and black glass or all-metal).

BABETTE PORTABLE BABY SOAP DISPENSER

For hospital nursery. BABETTE is made of strong chromed white metal with frosted globe holding a pint of soap. Leak-proof . . . filled through a large opening on top. Weight of hand on flange delivers soap in a continuous stream (leaving nurses' arms free). No pumping necessary. Weighted to prevent tipping. Convenient handle for carrying.

PERFECTION PUSH-UP LIQUID SOAP DISPENSER *Model 125*

Inexpensive yet incorporates leak-proof valve and patented cone type shut-off. Bracket of white metal nickel or chromed. Transparent heavy glass globe (screws in) holds 14 oz. of soap.



BLOC CONTAINERS

Neat dignified-looking perforated containers, made of 24 gauge heavy metal—equipped with lock and sliding back.

In White Enamel, Porcelain, Oxidize or Nickel Plate with your nameplate or plain.

In three sizes:—

Large $3\frac{1}{4}" \times 3\frac{1}{4}" \times 9\frac{3}{4}"$ —Holds 40 oz. bloc
De Luxe $2\frac{3}{4}" \times 2\frac{3}{4}" \times 8"$ — " 25 or 16 oz. bloc

Aerzonette $3\frac{1}{2}" \times 1\frac{1}{2}" \times 1\frac{1}{2}"$ — " 4 oz. bloc
Can be supplied plain or with your nameplate.



BABETTE
Model 132

Send for samples and prices of BABETTE Infants Pure Castile Soap. Also Surgical Soaps for hospitals.

BUILD BUSINESS UNDER YOUR PRIVATE LABEL

LUSTERBRYTE

"No-Rub water emulsion wax (Liquid). Requires no buffing after application . . . dries glossy in 10 to 15 minutes . . . contains high percentage of Carnauba Wax No. 1 . . . neutral, no excess alkali. Guaranteed against congealing. Freezing will not spoil Lusterbryte."

TUFEN-BRITE

For rubber floors. Tough and resilient as leather. . . . Brightens and beautifies color . . . preserves absolutely. Non slippery. Exceptionally long life. (Also fine for rubber counters, table tops, etc.)"

VARNISEPTIC MOPPING VARNISH AND FLOOR SEAL

Produces a lustrous non-slippery tough resilient surface easy to maintain. Unexcelled sealing properties . . . resists moisture, oil, grease, traffic. For cork, linoleum, cement, concrete and wood floors."

U. S. TERRAZZO SEAL

This new protective sealer preserves colors, prevents pittings, resists water, traffic and practically eliminates scrubbing. Adds years to life of terrazzo. Absolutely non-slippery. Excellent coverage.

*NOTE—Packed in 65, 35, 15, 10 and 5 gallon drums and 1 gallon cans.



Send for Price Bulletin on these fine products. Priced right. . . . dependable and profitable.

U. S. SANITARY SPECIALTIES

433 - 441 So. Western Ave., Chicago, Illinois

SOAP DEPT. liquid toilet soaps, mechanical soap, scrubbing soaps, green oil soaps, shower bath soaps, automobile soap.

SOAP DISPENSER DEPT. soaperior soap, dispensers, all types for industrial or hospital installations.

DISINFECTANT DEPT. coal tar products (co-efficient 1 to 20), pine oil products, chlorine products, live stock dips, cresol compound U. S. P., or Technical, formaldehyde, odorless disinfectants, perfumed sprays.

POLISH DEPT. metal polishes, furniture polishes, automobile polishes, floor and dressing oils, waxes.

SPECIALTIES DEPT. indoor chemical toilets, sprayers (hand and power), drinking fountains, aerzonator air conditioners, vending machines and sanitary napkins.

MISCELLANEOUS formaldehyde fumigators, chemical pipe cleaner, deodorizing powders, sweeping compounds, toilet bowl cleaners, weed killers, gum removers, ratocides.

INSECTICIDE DEPT. liquid exterminators, powder exterminators, mosquitoicides, gas fumigating machines, vaporizers, concentrated insecticides.

CORPORATION

Specialists in doing
one thing well



Reg. U. S. Patent Office

For over a quarter
century manufacturers of

TESTED and CERTIFIED

DISINFECTANTS

for the wholesale trade

BAIRD & McGUIRE, Inc.

HOLBROOK, MASS.

ST. LOUIS, MO





SANITARY PRODUCTS



A Section of "SOAP" Dealing with

INSECTICIDES • DISINFECTANTS • EXTERMINATING
FLOOR PRODUCTS • SANITARY SUPPLIES • MOTH PRODUCTS

SOAP is official publication of *The National Assn. of Insecticide and Disinfectant Manufacturers.*

JOHN H. WRIGHT, Secretary, Chrysler Building, New York.

EDITORIAL

THE first general meeting of the insecticide, disinfectant, and sanitary products manufacturing industries since the approval of the code for this group, will be held in Chicago on June 13. This meeting, open to all, will follow immediately after the twentieth annual mid-year meeting of the National Association of Insecticide & Disinfectant Manufacturers at the Edgewater Beach Hotel on June 11 and 12, and will be under the auspices of the national association. During this period, there will also be a meeting of the code authority of the industry to discuss ways and means for enforcement of the code. The Chicago meeting will present the first open forum for a discussion of code provisions in their final, approved form. It will also present the first opportunity for the formulation of revisions by the industry as a whole for recommendation to the code authority. It will be a meeting at which every manufacturer should be represented—one where all will be given an opportunity to be heard. The code is now *law*—the most important law affecting the manufacturer since the passage of the Insecticide Act of 1910. Plan to be present at the Edgewater Beach Hotel, Chicago, on June 13!

SINCE the first of the year, seizures of moth products because of faulty or erroneous labeling by Food and Drug Administration inspectors have been nearly three times as great as they were last year at this time. Most of the products, we understand, are para and naphthalene crystals and blocks which claim to kill or repel moths, but which give no quantity or other specific directions for use. In short, most of them fail to state the exact cubic space in which the particular product is effective. During the past year or so, the trade has been warned by us on several occasions about this very feature of moth product labeling. Those manufacturers and distributors who have chosen to ignore the warnings, and have continued to label their products solely "kills moths," or "repels moths—just hang in closet," or "merely sprinkle crystals in chest or trunk—sure death to moths"—are due for trouble before the present season is over.

—o—

WHEN a firm or individual bids on U. S. Government business, no consideration can be given to the bid or bids if the firm or individual is not complying with the code of

(Turn to Page 99)

Insecticide - Disinfectant Meeting



The twentieth annual summer meeting of the insecticide and disinfectant industries will be held at the Edgewater Beach Hotel in Chicago. This will be the eighth consecutive mid-year meeting of the national association to be held at this hotel.

THE twentieth annual mid-year meeting of the National Association of Insecticide & Disinfectant Manufacturers will be held in Chicago at the Edgewater Beach Hotel on June 11, 12 and 13. The first two days of the meeting will comprise closed sessions of the Association membership. The third day, June 13, will be an open meeting under the auspices of the Association for general discussion of the recently approved code of the industry. The two sessions on this last day will be open to all members of the industry who may care to attend. Only matters connected with the code and its enforcement will be taken up on the last day. No code matters will be discussed at the closed sessions, these being given over, according to latest plans, to papers and addresses on various commercial subjects, credit matters, sales problems, advertising, labeling, legislation, and the like.

The meeting will open with the arrival of most of the membership in Chicago on Sunday morning, June 10. Plans of the entertainment committee call for horseback riding and golf in the afternoon. Sunday evening at 8:00 P.M., a regular meeting of the Board of Governors will be held at the Edgewater Beach Hotel. First registration will open on Monday morning, June 11, at 9:30 A.M. Sessions will be held morning and afternoon each day during the three days of the meeting. Luncheons will be served on each day also. On Mon-

day evening, a bridge tournament will be held. The mid-year informal banquet will be held Tuesday evening at the hotel.

The general convention committee is headed by H. W. Hamilton of the White Tar Co. The program is in charge of J. L. Brenn of Huntington Laboratories and H. A. Nelson of the Chemical Supply Co. John Powell of John Powell & Co. is in charge of registration, and general arrangements. Grant A. Dorland of MacNair-Dorland Co. heads the entertainment committee. Those planning to attend the meeting should make their reservations for rooms direct with the Edgewater Beach Hotel, mentioning the Association meeting. Special room rates of four dollars single and six dollars double have been arranged. Registration fee for the meeting including all luncheons and the informal banquet will be fifteen dollars per person.

The program for the meeting follows:

Monday, June 11

- A.M.
9:30-10:30—Registration
10:30—Meeting called to order
10:35—Address of Welcome—Oliver J. Prentice, Chicago Chamber of Commerce
10:40—Response
10:45—Address of the President
11:00—Report of the Secretary
11:15—Report of the Treasurer
11:30—Roll Call

in Chicago on June 11, 12 and 13

- 11:45—Report of Committees—
Program—J. L. Brenn
Arrangement—John Powell
Entertainment—Grant Dorland
11:50—Special notices and appointments of committees
12:00—Report of Councillor to Chamber of Commerce of
the U. S.—Fred Wolff, E. I. Du Pont de Nemours
& Co.
12:30—Adjournment for Luncheon

P.M.

- 1:00—Luncheon
2:00—Meeting called to order
2:00—Report of the Insecticide Committee—W. J. Andree
2:10—Motion Picture Film, "New Film on Mosquitoes,
Their Habits and Developments"—U. S. Depart-
ment of Agriculture
2:30—"The Question of Credits"—National Association of
Credit Men
3:00—"The Advantage of Close Cooperation between Re-
search and Selling"—Dr. Foster D. Snell, Brook-
lyn, N. Y.
3:30—Wheeler Sammons—Secretary of Drug Institute of
America
4:00—"Containers as Related to Sales"—J. C. Bennett,
Wilson & Bennett Manufacturing Co.
4:30—"Perfume Odors and Sales"—P. C. Magnus, Presi-
dent, Magnus, Mabee and Reynard, Inc.
5:00—Remarks from the chair and adjournment for the
day.

* * *

Bridge Tournament—8:00 P.M.

Tuesday, June 12

A.M.

- 10:00—Meeting called to order
Remarks from the chair
10:10—Special reports and communications
10:20—"The Use of Bacteriological Data and Selling"—Dr.
H. D. Pease, Pease Laboratories, Inc.
10:45—"Methods of Securing Cooperation of Boards of
Health and the Medical Profession"—Joel I. Con-
nolly, Chief of the Bureau of Public Health En-
gineering of the City of Chicago
11:15—"What the Raw Material Producer Can Do to In-

crease Sales"—George C. O'Brien, Hercules Pow-
der Company

- 11:45—Report of Disinfectant Committee, Dr. George Red-
dish
12:00—"The Growing Importance of Floor Maintenance"—
J. H. Lawson, President, Federal Varnish Com-
pany
12:30—Remarks from the chair
Adjournment for Luncheon.

P.M.

- 1:00—Luncheon
2:00—Meeting called to order
Remarks from the chair
2:10—"Direct Mail Advertising"—Homer J. Buckley, Presi-
dent, Buckley, Dement & Co., Chicago
2:30—"Engineering and Sales"—Speaker to be announced
3:00—"Tugwell, Copeland and Other Recently Proposed
Legislation"—John Wright, Zonite Corp.
4:00—Vote on amendments to the By-Laws
Report of Resolution Committee
5:00—Final adjournment

* * *

Banquet—7:00 P.M.

Wednesday, June 13

A.M.

- 10:00—Meeting of Code Authority
Open meeting for all members of the Industry for
discussion of Insecticide and Disinfectant Code

Entertainment Program

THE entertainment program for the June meeting of the National Association of Insecticide & Disinfectant Manufacturers at the Edgewater Beach Hotel, Chicago, will be of a more varied nature than for previous conventions. Besides the annual informal dinner, planned for Tuesday night, the committee has arranged for golf, horseback riding and contract and auction bridge.

A riding party will be handled by G. E. Kummerow.

(Turn to Page 109)

Looking north over the grounds of the Edgewater Beach Hotel, Chicago, showing the gardens, miniature golf course, tennis courts, lakeside promenade, and Lake Michigan on the right,—a garden spot in the heart of Chicago



Clothes Moths and Their Control

By ALFRED WEED, Ph.D.

John Powell & Co.

BECAUSE of economic losses sustained through damage to a variety of materials and furnishings, the clothes moth, followed by the carpet beetle, should be ranked as the most destructive of the household insects. The destruction done by the larvae is not only a household problem, but one which confronts numerous industries. Although it is very probable that much of the injury supposedly done by moths is in reality due to carpet beetles, they are pests of first importance in the home.

It is believed that the clothes moths have been associated with man since prehistoric times, when they fed upon animal waste materials as scavengers. They were known in biblical times and to the Romans, and, like many of our more important economic insects, they were introduced into North America from the old world. Although the date of their appearance in colonial America is not known, their presence was recorded about the middle of the eighteenth century. In the order of their importance, the clothes moth we have to deal with are the webbing clothes moth (*Tineola biselliella* Hum.), the case-making clothes moth (*Tinea pellionella* L.) and the tapestry moth (*Trichophaga tapetzella* L.). Dissemination of these insects is accomplished largely through the distribution of infested articles. In centers of population, especially heated apartment buildings, the adult moths will fly from one apartment to another through hallways or may gain entrance through unscreened windows.

It is not a particularly difficult matter to distinguish the different species involved from the examination of the adult, the larvae or its feeding habits, especially since the tapestry moth is not common and has not been recorded in many states. The adult of the "webbing" and "case-making" moths, although they vary as to size, seldom have a wing expanse of more than one-half an inch. The former is a pale or light buff color with the forewings devoid of markings; while the latter may run to a grayish yellow color with three indistinct dark spots on the forewings. The adult of the tapestry moth is larger, attaining a wing expanse of three-fourths of an inch, and the basal third of the forewing—that is, the part nearest the body—is distinctly blackish in color. The larvae of the "webbing" and "case-making" species are similar in size and appearance; but the former spins transparent coverings, sometimes cobweb-like, under which it feeds and the "case-making" species, as the

name implies, builds a portable tubular case within which it spends its larval and pupal life, increasing the size of the case as it grows. This species spins little, if any, webbing upon the materials on which it feeds. The larvae of the tapestry moth shows a preference for heavy materials, mining in the goods or building tunnels or burrows running in all directions.

It is probably needless again to mention the fact that all the feeding, as well as resulting damage, is done by the larvae (worms). The adult moths do not possess mouth parts in any way suitable to attack fabrics, and therefore take no nourishment during the period which they live. The entire intake of food material is thus left to the larva which must build up sufficient reserves to care for the other stages.

The larvae feed upon hair, wool, feathers and fur, as well as fabrics made from them. They will also feed upon dead insects, untreated skins, beef meal, casein, cobwebs, dried bodies of rodents and birds and dried animal excretions. They seldom attack natural silk. Injury done by the larvae is of two kinds; actual feeding, and the cutting of fibres for use in the building of their cocoons in which occurs transformation to the adult form. Fibres used in the cocoons may be taken from the food upon which they have subsisted or cut from silk, rayon, cotton or even paper. The recorded emergence of clothes moth adults from sugar and cereal products is undoubtedly to be linked with a previous infestation of some other pest, upon the dead bodies of which the larvae have been feeding.

The character of the food upon which the larvae of the clothes moth and several injurious beetles feed should be of interest to the physiologist. Wool (keratin or horny substance) is indigestible among mammals and birds, as well as highly resistant to many reagents in the laboratory, yet it forms the principal source of nourishment for these pests. For the home a lengthy list of materials can be prepared subject to attack by moths, among which may be cited several frequently overlooked, such as the hair from pet animals and wool lint accumulated in cracks in the floor and below baseboards, piano felts, dust brushes, stuffed birds and animals, and wool felt insulating.

All of the species of moths have what is known as a complete metamorphosis, passing through four different stages in their life cycle—egg, larva, pupa and adult. The length of time occupied by these stages va-

ries among the species, and for the individuals making up a brood. Because of the differences in time to complete development, all of the stages may be present at the same time in steam heated buildings. Temperature, humidity and the food are important factors, especially in the speed with which the larvae grow.

The adult moths (millers) are often seen flitting about in darkened corners in the evening, almost any month of the year in heated homes. They are shy insects, seldom seen during the day, unless disturbed in their resting place. When pursued they seek cover usually to reappear a little later somewhere else in the room. Adult males of the webbing species have lived for more than two months, females for more than a month, but two to three weeks would more nearly approximate their length of life. Although females may lay over two hundred eggs, one hundred is the average number. A majority of these are deposited during the first few days of her life, commencing when less than a day old.

The eggs may be laid in groups or singly, loosely upon fabrics, in folds or seams; in furs they may be deposited down next to the skin, or they may be laid in crevices at some distance from the material upon which the larvae are to feed. They are whitish in color, small and fragile, yet easily seen with the naked eye on dark fabrics. At summer temperatures they hatch in four to eight days, while in colder weather three weeks' time may be required. The eggs which do not hatch within such periods of time never produce live larvae.

The larvae are whitish in color; almost transparent in their early growth, so that the color of their food can be discerned. Temperature, humidity and food are factors on which their rate of growth is dependent, as previously mentioned. Observations have shown that for no apparent reason they may enter a period of dormancy during which they do not feed, while later on they will again take up feeding or they may die. Such reactions bring about a decided overlapping in generations and the presence of all of the stages at the same time. When full grown they may be a half inch in length. The most rapid larval development for the webbing species is recorded at forty days, while it may extend over a period of years, with the consequence that the housewife may be harboring at all times in out-of-the-way places larvae that are capable of doing damage.

The pupa is the transitional stage in which characteristics of the larva or worm are lost and those of the adult "miller" appear. The period of time for this change in warm weather is a week to ten days, while in winter weather a month may be occupied.

The seasonal history, or the number of generations annually, may be seen to be quite variable, in view of the peculiar behavior of the larva. A generation of the webbing species may be completed in about two months, or it may be extended for a period of four years. Observations have shown that a generation of the webbing clothes moth may be completed under normal conditions in three to four months during summer weather,

while eggs deposited in the late summer or early fall do not reach the adult stage until the following spring. Although, as already stated, in steam heated buildings the adults may be seen in almost any month of the year, the months from May to October constitute the period in which adult moths are normally most abundant. In steam heated houses there are two generations of the webbing species a year, whereas under cooler conditions or where the case-making species is concerned but a single brood a year.

Control Method

AS possibly inferred from the foregoing discussion of moths and their habits, several practices suggest themselves as useful in avoiding injury. Doses of the various fumigants and further details of the treatments are contained in several of the publications listed. A rough classification of the recommended methods to follow would include mechanical treatment and the use of protective coverings, the reaction of the various stages to temperature and the use of contact insecticides, fumigants and moth-proofing materials. Certain proprietary insecticides involve combinations of contact sprays with both fumigants and proofing compounds. While all of the above means of control may be resorted to in the home, the insecticide and temperature reactions are used industrially.

Unfortunately the housewife is usually too busy with other duties to take the simple precautions which would limit much of the damage done to wearing apparel and furnishings. She is convinced only of the importance of moths after the damage has been done. A few dollars spent in prevention will often save many in repairs and replacements. The housewife should be educated to be always on the watch for moths or evidence of their presence, and if the task of making the necessary treatment is too difficult to undertake she should call in someone familiar with such problems. The insecticide manufacturer can do much in allaying cloths moth injury in the home by giving the consumer information not only about his own product, but about other remedial measures which, when used in conjunction with the material he distributes, accomplish more satisfactory results. The householder should not be given the impression that a few pumps with a spray gun, the use of half a teaspoonful of fumigant, or two ounces of other material scattered on closet shelves will accomplish moth control.

There are several simple things the housewife can do to help herself with the moth problem,—a problem in every third home at least. Since the larvae do not like to be disturbed and the eggs are fragile, thorough brushing, beating and sunning of the garments and other furnishings easily handled twice monthly will in a majority of instances keep such material free from injury. Garments which are worn several times a month are seldom, if ever, attacked. Both eggs and larvae will be removed when clothing is washed in a strong soap solution and are destroyed when fabrics are immersed in water at a temperature of 140 deg. F. for ten seconds.

(Turn to Page 103)

DERRIS

PYRETHRUM

A STATEMENT OF POLICY

WE have every confidence in the future of Derris and Derris Insecticides. We believe that Derris has definitely established a place for itself and that as new and improved methods of employing it are discovered its usefulness will be extended.

OUR own position in this new and rapidly expanding business is clearly defined and unequivocal. To us Derris is a commodity, not a specialty. We are importers, millers and dealers in Derris and our business is exclusively with manufacturers.

THE foregoing applies with equal force to our position in Pyrethrum on which our attitude is and always has been the same.

WE feel that the manufacture and distribution of finished insecticides is a function belonging to our customers; not to ourselves.

TO the manufacturers of Pyrethrum and Derris Insecticides we offer dependable deliveries and uniformly high quality, together with full technical cooperation. We add the assurance that we do not compete with our customers directly or indirectly.

W. BENKERT & COMPANY, INC.
100 GOLD STREET NEW YORK, N. Y.

Estimation of Pyrethrins

By HARVEY A. SEIL, Ph.D.*

Seil, Putt & Rusby, Inc.

ALTHOUGH many attempts had been made to determine the active ingredient of pyrethrum, none were successful until Staudinger and Ruzicka (1) reported the results of their thorough investigation in 1924. These authors proved that Pyrethrin I and Pyrethrin II were the active principles of pyrethrum, and established their chemical constitution. They established the fact that the pyrethrins were esters of the same ketonic alcohol pyrethrolon combined with two different acids. Pyrethrin I was the pyrethrolon ester of chrysanthemum monocarboxylic acid and Pyrethrin II the pyrethrolon ester of chrysanthemum dicarboxylic acid.

Several methods for the estimation of the pyrethrins have been published. These can be divided into three classes:

1. Methods depending on the reducing properties of the pyrethrolon.
2. Methods depending on the ketonic group in the pyrethrolon.
3. Methods based on the acids combined with the pyrethrolon.

It is evident that methods falling into classes 1 and 2 can determine only the total pyrethrins present, while those in class 3, by determining both acids, give the amounts of Pyrethrin I and Pyrethrin II present.

The methods of Gnadinger and Corl (6), and Martin and Tattersfield (7) fall into class 1, since both depend on the reducing power of pyrethrolon. Staudinger and Harder (8), and Tattersfield, Hobson and Gimingham (9) developed semicarbazone methods which fall into class 2, since they depend on the ketone group of pyrethrolon. The acid methods of Staudinger and Harder, and Tattersfield, Hobson and Gimingham fall into class 3 and differentiate the pyrethrins.

If both of the pyrethrins were equally toxic, it would be immaterial which method was used for assay, provided it was accurate. However, Staudinger and Ruzicka reported Pyrethrin I to be more toxic than Pyrethrin II; Tattersfield and Hobson (2) stated that Pyrethrin I is ten times as toxic as Pyrethrin II; Wilcoxson and Hartzell (3) also state that Pyrethrin I is decidedly more toxic than Pyrethrin II; Wilson (4), based on the figures for the concentrations of Pyrethrins I and II and the corresponding kill reported by Wilcoxson and Hartzell, mathematically calculated the relative toxicities of the pyrethrins and reported that Pyrethrin II has a toxicity

of only about 7 per cent of that of Pyrethrin I; Gnadinger and Corl (5) found that Pyrethrin II possesses about 80 per cent the toxicity of Pyrethrin I.

Since the pyrethrins differ markedly in their relative toxicity, an analysis giving the total pyrethrins is not sufficient to give the true activity of a sample. For example, if two samples of pyrethrum flowers assay 1 per cent total pyrethrins, with sample "A" containing 0.40 per cent Pyrethrin I and 0.60 per cent Pyrethrin II, and sample "B" containing 0.46 per cent Pyrethrin I and 0.54 per cent Pyrethrin II, using Wilson's figures we find that sample "B" is 12 per cent stronger than sample "A." The Pyrethrin I content of the flowers gives a better index of their toxicity than total pyrethrins. From the Pyrethrin I content of both flowers, sample "B" is 11.5 per cent stronger than sample "A."

The proposed method is an improvement on the acid methods of Staudinger and Harder, and that of Tattersfield. The time required for an analysis is much shorter, and no special equipment is required. After the flowers have been extracted with petroleum ether, the solvent is evaporated, the residue is saponified with N/2 Ethyl alcoholic NaOH for 1 to 2 hours. After the saponification is complete, the alcoholic solution is transferred to a beaker, and the alcohol removed by boiling. Since the pyrethrin acids are not precipitated with Barium Hydroxide, the fats, resins and inert material are removed by precipitation with Barium Chloride. In an aliquot of the filtrate the monocarboxylic acid is determined substantially as in the Tattersfield Method. The Dicarboxylic acid is determined by direct extraction with ether from a saturated salt solution, eliminating the mechanical extraction with ether, saving at least 19 hours in time.

The Method

METHOD—12.5 g. of 20-30 mesh powdered flowers are extracted in a Soxhlet extractor with low boiling petroleum ether. After the extraction is complete, the petroleum ether is recovered on a water bath. 10 to 15 c.c. of N/2 ethyl alcoholic NaOH is added and the mixture is refluxed for 1 to 2 hours. The alkaline alcoholic solution is transferred to a 600 c.c. beaker, the flask washed with water, and sufficient water is added to bring the volume of liquid in the beaker to 200 c.c. A few glass beads are added and the alcohol is removed by boiling, care being taken to avoid boiling over due to the soap formed by the saponification. When the volume has been reduced to 150 c.c. the solution is cooled

*Based on paper read before 20th Annual Meeting, Natl. Assn. Insecticide & Disinfectant Mfrs., New York, Dec., 1933.

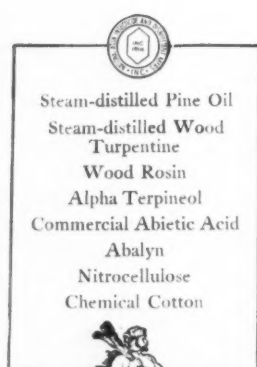
WHY DEODORANTS

Containing **YARMOR**

are Superior

Deodorants containing Yarmor destroy objectionable odors effectively and leave the clean, health-giving fragrance of pine forests. Other important points in their favor are:

1. They disinfect as well as deodorize.
2. They are non-inflammable.
3. They are economical to use.



We do not manufacture deodorants, but we do produce Yarmor Steam-distilled Pine Oil. Manufacturers and users will profit by investigating the advantages of deodorants containing Yarmor.

HERCULES NAVAL STORES

HERCULES POWDER COMPANY

INCORPORATED

961 Market Street, Wilmington, Delaware

BRANCH OFFICES: • CHICAGO • NEW YORK • ST. LOUIS • SALT LAKE CITY • SAN FRANCISCO



90-43

and transferred to a 250 c.c. standard flask, to which about 1 g. of filter-cel has been previously added. The solution is thoroughly mixed to distribute the filter-cel, then 10 c.c. of 10 per cent Barium Chloride Solution is added, made up to the mark with water and thoroughly mixed. After the precipitate has settled, filter through a fluted paper. Transfer 200 c.c. of the clear filtrate to 500 c.c. Erlenmeyer flask, add 1 c.c. of conc-sulphuric acid which precipitates the excess Barium and liberates the chrysanthemum acids. Distil with steam, using a distillation trap and an efficient condenser. Receive the distillate in a 500 c.c. Squibb separatory funnel and distil until the liquid in the flask is between 15 and 20 c.c. The amount in the separatory funnel is usually 250 c.c. Allow the flask containing the dicarboxylic acid to cool.

To the separatory funnel add 50 c.c. of neutral petroleum ether, and shake thoroughly for one minute. After the liquids have separated, draw off the aqueous layer into a second 500 c.c. separatory funnel to which a second 50 c.c. of neutral petroleum ether has been added. Shake for one minute and after the liquids have separated, discard the aqueous layer. Wash the petroleum ether in the first separatory funnel with 10 c.c. of water using the same wash water for the petroleum ether in the second funnel. Repeat with a second wash water of 10 c.c. as before. Combine the petroleum ether extracts. Neutralize 15 c.c. of water containing 1 drop of phenolphthalein indicator solution with N/50 NaOH and add it to the combined petroleum ether solutions and titrate with N/50 NaOH, shaking after each addition until the aqueous layer is just pink. Each c.c. of N/50 NaOH consumed is equal to .0066 g. of Pyrethrin I. The 200 c.c. aliquot taken corresponds to 10 g. of sample. Therefore the number of c.c. consumed times .066 gives the percentage of Pyrethrin I.

The solution containing the dicarboxylic acid is filtered through a gooch crucible. The flask is washed with a little water. The clear filtrate is made alkaline with Bicarbonate of soda and transferred to a separatory funnel. It is washed twice with chloroform. Washing the first chloroform extract with water, using the same wash water for the second chloroform wash. Combine the aqueous solutions, acidify strongly with hydrochloric acid, saturate with salt, and extract with 50 c.c. of ether, shaking for about 1 minute. Repeat the extractions with three more portions of ether, using 50 c.c. for the second and 25 c.c. each for the third and fourth extractions. Wash the ether of the first extraction with 10 c.c. of water as before. Combine the ether solutions, extracts successively. Repeat with a second wash with 10 c.c. of water as before. Combine the ether solutions. Tap off any water separating, and filter into a flask. Recover the ether on a water bath and dry the residue at 100° C for 10 minutes. Add 2 c.c. of neutral alcohol, warm gently, then add 20 c.c. of distilled water and heat to dissolve the acid. If a residue remains undissolved, cool and filter through a gooch crucible. Add a drop of phenolphthalein indicator solution and titrate

with N/50 NaOH of which 1 c.c. is equivalent to .00374 Pyrethrin II.

Method for Kerosene Extracts

VOLLMAR (10) suggested a method for determining Pyrethrin I in kerosene extracts containing no perfumes. The method just outlined can be applied to kerosene sprays. If the spray contains a perfume which may contain esters which will interfere with the estimation of the pyrethrum acids, the perfume can be removed as follows: 100 c.c. of the ordinary household extract, or less of a concentrate, is placed in a 500 c.c. flask with 50 c.c. of water. The flask is heated and steam passed through until the distillate has no perfume odor. The contents of the flask is cooled and transferred to a separatory funnel, the liquids are allowed to separate and the water tapped off into a second separatory funnel, and washed with 25 c.c. of kerosene. The oil in the first funnel is transferred to a 250 c.c. Erlenmeyer flask. The first funnel is washed with the kerosene in the second, which is then added to the flask. 20 c.c. of N/2 Ethyl Alcoholic NaOH is added and refluxed on a hot plate for 1 to 2 hours. It is then transferred to a 600 c.c. beaker, washing the flask with water, finally adding enough water to make the aqueous layer measure 200 c.c. A few beads are added and the solution boiled until the aqueous layer is 150 c.c. After cooling, the solution is transferred to a 500 c.c. separatory funnel and the kerosene separated. The alkaline aqueous solution is tapped into a 250 c.c. flask. The kerosene is washed once with 10 c.c. of water which is also added to the flask. One gram of filter-cel is added and an excess of 10 per cent Barium Chloride solution, usually 10 c.c. is sufficient. From this point proceed as in the method previously outlined.

If the spray under analysis is not perfumed, 100 c.c. is saponified directly with the alcoholic NaOH, without steam distillation.

Reactions of Chrysanthemum Carboxylic Acids

THE aqueous solutions remaining after the titration of both the acids can be used directly for the qualitative tests. If desired, the alcohol can be removed by boiling. After cooling and rendering just acid with acetic acid, and adding a little filter-cel, the phenolphthalein can be removed by filtration through a gooch crucible. With the usual reagents, the acids give the following reaction.

Reagent 10% Solution	Mono Acid		Di Acid	
	Cold	Hot	Cold	Hot
CaCl ₂	—	—	—	—
BaCl ₂	—	—	—	—
AgNO ₃	—	—	—	—
AgNO ₃ + NH ₄ OH	—	—	—	—
ZnCl ₂	—	—	—	—
Pb(C ₂ H ₃ O ₂) ₂	+	+	+	+
CuSO ₄	+	+	+	+
FeCl ₃	+	+	+	+
HgCl ₂	—	Reduction	—	Reduction
Fehling Solution	—	—	—	—
K Mn O ₄	Reduction	Reduction	Reduction	Reduction
Br.	Absorbed	—	Absorbed	—

(Turn to Page 111)

DEO-BASE

Reg. U. S. Pat. Off.

No Kerosene Odor-

The time is close at hand when all liquid insecticides will have to be free from that tell-tale residual odor of kerosene. It is one of the greatest sales obstacles today. Eliminate it by using DEO-BASE—a petroleum oil refined to complete freedom from kerosene odor.

— • —

Liquid insecticides made with DEO-BASE find ready acceptance by housewives, the best hotels, dairies, bakeries, clubs, food markets . . . in fact, wherever the kerosene odor of ordinary sprays is found objectionable.

— • —

DEO-BASE conforms in every detail with the specifications of the National Association of Insecticide & Disinfectant Manufacturers.

L. SONNEBORN SONS, Inc.

Refiners of White Oils and Petrolatums

New York Office
88 Lexington Avenue

Refineries { Petrolia, Pa.
Franklin, Pa.

Chicago Office
820 Tower Court

APPROVE AGRICULTURAL INSECTICIDE CODE

The code of fair competition for the agricultural insecticide and fungicide industries has been approved and went into effect May 11. Provisions in the code calling for a waiting period between the time of filing revised price lists and their effective date were deleted. Another section was substituted providing that if destructive price cutting is encountered, the code authority may determine the lowest reasonable costs at which goods may be sold and set these as minimum figures.

The Agriculture Insecticide and Fungicide Association met at Haddon Hall, Atlantic City, May 14, one of the purposes of the meeting being the election of a code authority for the industry. Nominees for the ten posts on this group were as follows: sulphur group, D. E. Demmon, Stauffer Chemical Co.; nicotine representative, G. F. Leonard, Tobacco By-Products and Chemical Co.; pyrethrum-rotenone representative, G. R. Rinke, John Powell & Co.; southern group, J. Hal Boyd, Commercial Chemical Co.; pacific group, Robert K. Vickery, California Spray Chemical Co.; east and mid-west group, J. B. Cary, Niagara Sprayer and Chemical Co.; R. N. Chipman, Chipman Chemical Co.; D. E. Connolly, Ansbacher-Siegle Corp.; H. P. Mansfield, Grasselli Chemical Co., and G. E. Riches, Bowker Chemical Co. Other trade practices included in the code outlaw free goods, except to government experiment stations; commercial bribery; secret rebates or allowances; lotteries, fraud or misrepresentation in selling; guarantee against price decline; sales on consignment, except patented phytonomic oils; sales through brokers except on one per cent commission. All packages must comply to interstate commerce regulations, and must be marked in accordance with the Federal insecticide act.

—O—

W-B Chemical Co., formerly located at 500 Fifth Ave., New York, has taken new quarters at 521 Fifth Ave.

HOLD HEARINGS ON N. O. P. I. CODE

Open hearings on the code of fair competition for the Natural Organic Products Industry were held in Washington, April 20, in the Willard Hotel. The code was presented by Ray C. Schlotterer, secretary of the Natural Organic Products Association. Objection was raised by NRA officials that not all small distillers of natural oils had been advised of the drafting of the code. It was accordingly suggested that full details be forwarded to all concerns who would be affected. This has been done and replies to date indicate that little if any change in the code will be needed. Another point was raised at the hearing by manufacturers of synthetic aromatic chemicals, who are already operating under the chemical code. They suggested that the definition of an aromatic product included in the N. O. P. I. code be clarified to exempt them from its provisions.

Herman G. Weicker, Dodge & Olcott Co., is president of the Natural Organic Products Association, which sponsored the code. Divisional code committees have been appointed as follows: Botanical Drug, S. B. Penick, divisional vice-president, J. B. Gruman, J. L. Hopkins, H. F. Klock, Richard Prentiss and J. A. Velsor; Essential Oil, A. D. Armstrong, divisional vice-president, Edward C. Killeen, Percy C. Magnus, Harry C. Ryland and Fred H. Ungerer.

—O—

Another prosperous year was enjoyed by the firm of Reckitt & Sons, well-known British manufacturers of disinfectants, germicides, bath salts, polishes, and household cleansers, despite the continuance of difficulties in export markets. Profits were again lower, but the decline amounts to no more than $2\frac{3}{4}$ per cent—from £1,175,626 to £1,143,302 (\$5,716,510). The liquid position remains very strong, for cash and external investments alone exceed £2,000,000 (\$10,000,000).

◆

The new Flit powder makes its appearance in an attractive package of yellow and black, following the same design and color scheme of the can for liquid Flit. It is a pyrethrum product with one per cent of rotenone extractive. The small can is a ten-cent seller. Manufactured by Stanco, Inc., New York.



PARADOW

PURE PARADICHLORBENZENE



Six sizes of crystals, snow-white, pure and transparent, all uniform in size, will make it possible for you to select the size and form of Paradichlorobenzene that fits your requirement. Each form of crystal is designed to meet specific trade needs, whether it is to be processed or repackaged in its original form and sold as a moth killer, a deodorant, or for other purposes.

We offer the six sizes: $\frac{1}{4}$ " crystal, Coarse, Medium, No. 1, Medium No. 2, Graded Fines, and Fines, and in addition are in position to produce special size crystals if desired. All sizes possess marked free-flowing properties.

We invite your inquiry. Let us quote on your requirements of Paradow, Pure Paradichlorobenzene of highest grade.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN



Stuart F. Heinritz of New York, formerly editor of the publication "The Purchasing Agent" and other papers, and special consultant to the National Association of Purchasing Agents, has been appointed administration member of the code authority of the Insecticide and Disinfectant Manufacturing Industry, according to an announcement by Division Administrator George L. Berry of the NRA.

Division Administrator Sol Rosenblatt has been placed in control of the NRA code for the disinfecting and fumigating, and the exterminating industry code. Transfer of these codes to Division 5 followed appointment of Deputy Administrator Harry O. King to succeed Arthur D. Whiteside as Division 4 administrator. King had formerly been in the division handling these codes and with his transfer to other duties it was considered advisable to relieve his former department of some of its work.

Sterling Laboratories, Inc., St. Louis, L. C. Eulberg, president, has been incorporated for \$6,600 capital to manufacture a line of deodorants, disinfectants, germicides, etc., under the trade name of "Miracle" products. The company, which moved to St. Louis from Indianapolis, merchandises its products directly through the mail and through house-to-house canvass. At present 15 persons are employed.

The advertising campaign of the Black Flag Company, which is to open earlier than usual this year, will center around Frank Buck, jungle explorer, who will describe over the radio how "Black Flag" protected his expedition against jungle insects. Newspapers, comic sections and store displays will also be used to tie in with the campaign.

S. C. Johnson & Son, Inc., Racine, Wis., will again feature this year a special 98c offer of a can of its "Glo-Coat" polish and a long-handled applicator.

Eaton Wax Company, Buffalo, waxes and polishes for floors and furniture, has placed its advertising account with Moss-Chase Company, Buffalo agency.

A horticultural spray is made from pine oil and an insecticide such as a kerosene extract of pyrethrum, with a sufficient addition of dipentene substantially to inhibit the tendency of the pine oil to burn foliage. The composition may be used in the form of an aqueous soap emulsion. Amos E. Badertscher to McCormick & Co. United States Patent No. 1,938,652.

Samuel J. Caplan has become associated with the Gerson-Stewart Corp., Cleveland, manufacturers of soaps, disinfectants, and sanitary products, as research chemist. He was formerly chief chemist for The Apex Soap and Sanitary Corp., Pittsburgh.

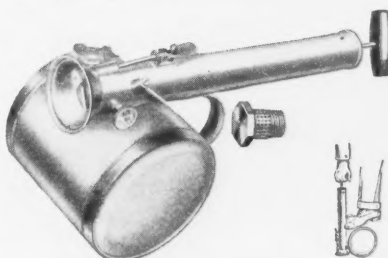
THE SPRAYIT SANITATOR



A Motor Driven Sprayer in the Price Range of a Steam Type Unit

The minute you plug in the Sprayit Sanitator it starts a war on insect pests. No waiting for water to boil, no salt to guess about, no small insecticide bottle to require constant refilling.

The Sprayit Sanitator applies either standard bulk or the more concentrated insecticides, applying them in finely atomized cloud-like fumes that permeate every crack and crevice. Holds a quart of insecticide. Operates on less than half the current required for a steam vaporizer. It can also be supplied with Automatic Time Switch permitting operator to set unit to operate for any period from one minute to one-half hour." The Sprayit Sanitator will give you a nice resale profit and increase your insecticide sales. Write for new low prices today.



Sprayit Hand Sprayers

Sprayit offers a complete line of hand and power sprayers, including the Chemical Sprayer illustrated. Write for circular and price sheet.

SPRAYIT

South Bend
Indiana

FOR YOUR
Paradichlorbenzene
 AND *Naphthalene*
 REQUEST SAMPLES of

COLOROMES

COLOROMES have been especially developed by Felton Chemical Co. to perfume and color Paradichlor-Benzene and Naphthalene blocks or crystals in one single, simple operation.

Extensive research has resulted in the formulation of products which completely neutralize the inherently disagreeable odor of Para and Naphthalene and leave only a pleasant fragrance which persists until the last trace of the block or crystal has disappeared.

COLOROMES are available in any of the popular odors and with any desired color, of exceptional fastness.

Coloromes are also supplied without color.

Priced to meet the demands of present day competition.

FELTON CHEMICAL COMPANY, Inc.

603 JOHNSON AVENUE, BROOKLYN, N. Y.

AROMATIC CHEMICALS — NATURAL ISOLATES — PERFUME OILS — ARTIFICIAL
 FLOWER & FLAVOR OILS

Stocks carried in following cities:

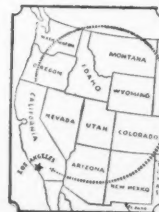
Chicago, Ill.
 1200 N. Ashland Ave.

New Orleans, La.
 ROBERT E. FELTON
 Balter Bldg.

St. Louis, Mo.
 KIEFER SALES
 & ADV. SERVICE
 1014 Locust St.

*A COMPLETE SERVICE
 FOR THE WEST*

FELTON CHEMICAL CO.
 INC.
 515 So. Fairfax Ave.
 Los Angeles, Calif.



NOTES OF THE TRADE

Enoz Chemical Co., maker of "Enoz" moth spray, features "Wooley-the-Moth" in a new radio program over Station WENR, Chicago. A booklet linking up the program with moth control is mailed to listeners.

Stanco, Inc., will extend its advertising campaign on "Flit" this season, using 175 newspapers as compared with 137 last year. Magazines and farm papers will also be used. McCann-Erickson, Inc., New York, handles the account.

Plans for advertising Sinclair's "P.D." this summer call for use of leading magazines as well as a regular weekly-minstrel show broadcast. The company will continue to feature its booklet, "Down on the P. D. Fly Farm," copies of which will be mailed to radio listeners.

Charles Galinari, sales manager for A. S. Boyle Co., floor wax, died last month in Cincinnati following an operation for appendicitis. Mr. Galinari was forty-seven years old and had been with the Boyle Company for eleven years.

A son was born to Dr. and Mrs. Alfred Weed, May 5, in the Presbyterian Hospital, New York. Dr. Weed is chief entomologist for John Powell & Co., New York. The youngster will face life with an eight-pound start, laboring, however, under the handicap of the name, John Weed. The father is reported doing as well as could be expected.

Employees of McCormick & Co., Baltimore, gave a hoodoo dance on Friday, the thirteenth, last month, the event being arranged to aid the fund of the relief association. Norman Settle was chairman of the committee which arranged the dance.

Hercules Powder Company has developed a new insecticide to be used on rustic furniture, fences and cabins. It is a non-staining liquid and is appropriately called "Cabinol."

Richard V. Look, vice-president and director of the Dominion Tar & Chemical Co., Montreal, died April 18 while visiting his parents at their home near Lexington, Ky. Mr. Look was fifty-one years old and a native of Louisville.

"O-So-Ezy Slip-On Mop and Polish" are new low-priced leaders made by the O'Cedar Corp., Chicago. These products are sold to dealers on a non-price maintenance basis.



TAR ACIDS

CRESOL U.S.P

CRESYLIC ACID

98% to 100% • STRAW COLOR

TAR ACID OILS

PHENOLS

NEUTRAL

HYDROCARBON OIL

**KOPPERS
PRODUCTS
COMPANY**

**1249 KOPPERS BUILDING
PITTSBURGH, PA.**

USING DERRIS?

If so—
send for your copy of
THE ROTENONE NEWS
which answers many
questions now being
asked about Rotenone
and tells you just
what to expect from
this product.

CYRUS WARD & CO. Ltd.

305-309 EAST 47th STREET

NEW YORK

"WARD FOR ROTENONE"

BRUSH MANUFACTURERS REJECT CODE

A proposed code of fair competition for the brush manufacturing industry was rejected by the American Brush Manufacturers Association at their annual convention in Atlantic City, April 23. Serious objections were raised to the deletion by Administrator Hugh S. Johnson of clauses in the code which declared that the members of the industry, in signing the code, did not waive any of their constitutional rights and that they also did not consent to any modification of the code, reserving a right to object to any such proposed modifications. Action was taken at the convention after an unusually lengthy discussion which followed the report of the association's code committee, pointing out that the NRA administrator had insisted that the code was in full effect as of March 23 when it was signed by him.

The second number of "Derris Development," issued by W. Benkert & Company, New York, contains a discussion of standards for derris and derris insecticides. It is argued that rotenone content alone is not a satisfactory measure of valuation of derris, it being pointed out that constituents of derris other than rotenone also possess insecticidal effectiveness. Copies of the folder may be secured by addressing W. Benkert & Co., 100 Gold St., New York, mentioning the name of Soap.

An insecticide in jelly form suitable for dilution with water, is prepared by saponifying a mixture of fatty substances such as lard and coconut oil, with caustic alkali. This product is neutralized or rendered slightly acid, and then incorporated with a mineral oil extract of pyrethrum. James R. Cattanaach. British Patent No. 401,519.

An extract of quassia wood, rhatany root or pyrethrum flowers is added to a fatty or ethereal oil which has been treated with sulfur; for example, 6 parts of linseed oil heated to 120° C. with 1 part of sulfur. Glue, gelatin, and powdered materials may be added to the mixture. Johannes A. L. Bouma. Dutch Patent No. 30,941.

EDITORIAL

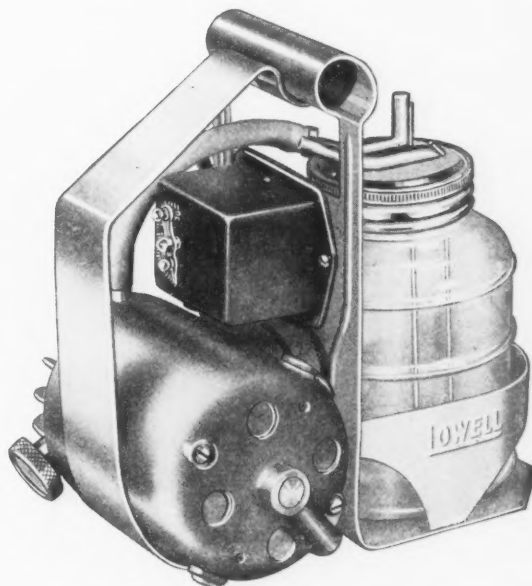
(From Page 83)

the industry in question, if such a code has been approved. This is covered by Executive Order No. 6646. Now that the insecticide and disinfectant code has been approved, all bids for such products must be accompanied by a certificate that the bidder is complying in every way with the code and will continue to do so. No bid which does not comply with these requirements, can be considered or accepted by any Government department. This is another nice little problem for the code authority of the Insecticide and disinfectant industry.

LOWELL ELECTRIC INSECTICIDE VAPORIZER

Plug into Light Socket — Turn on the Power —
It Is Instantly Ready for Use. Nothing to
Heat Up — and the Fine Dry Spray
Instantly Rises in a Cloud of
Death to Insects.

*Cost of Operation approximately Half that of Steam
Outfits.*



No. 300 Electric Vaporizer

● The New, Improved combination spray head permits the use of either an angle or parallel spray by merely changing the air supply tube to position desired. Portability made easy by carrying handle.

The addition of the convenient pistol grip type handle allows the vaporized contents to be directed into otherwise inaccessible places such as under sinks, into closets and along the mould boards.

Time Switch can be set to any period of time from one to thirty minutes, according to size of room to be treated, and automatically turns off motor at end of period.

Write for Full Particulars to

**LOWELL MANUFACTURING
COMPANY**

Lowell, Michigan, U.S.A.



Bossie knocks 'em cold!...

**New Perfume from Pensacola
has all the Bugs Buffaloed**

Increase the efficiency of your spray by extending its period of effectiveness.

NEWPORT HEAVY WHITE PINE OIL

added to your formula will create a cattle spray which not only kills, but has a long-lasting odor, repellent to insects, yet non-irritating to cattle. Samples gladly sent on request.

Producers also of Newport Steam Distilled
Rosins, Turpentine and Dipentene.

GENERAL NAVAL STORES COMPANY, INC.

Address Main Office: 230 Park Avenue, New York City



Plants: De Quincy, La.; Pensacola, Fla.; Bay Minnette, Ala.



A display stand for Tick Insect Spray was among the Wolf Award winners for 1934. The stand is of corrugated fibre board, making an extremely light and low cost display. Made by Hinde & Dauch Paper Company of Sandusky, Ohio. Tick is made by Derris, Inc., New York

FIND FUMIGATION FATALITIES FEW

A survey of fumigation and extermination work throughout the United States is being conducted by the National Association of Exterminators and Fumigators, under the direction of William O. Buettner, president, and N. K. Concannon, executive secretary. The survey is covering large cities in all sections of the country through commissioners of health and local members of the association. Thus far, reports received indicate that fatalities from fumigation accidents, based on the total number of fumigations done over a period of years, have been negligible. Although in most cities, the report shows that no local laws relative to fumigation and extermination control exist, the extent of such legislation is steadily increasing. The chief fumigants reported on were hydrocyanic acid, other cyanides, formaldehyde, and sulfur dioxide.

The first issue of the "Rotenone News" has recently been published by Cyrus Ward & Co., Ltd., New York, new factor in the derris market. It is pointed out that, although only recently introduced in this country, rotenone is not in any sense a "new" insecticide. It has been widely used in England and other countries for a number of years.

The team representing McCormick & Co. in the Baltimore Drug Trade Bowling League again finished in first place in league competition this year, with 31 games won and 14 lost.

MADE IN

4 POPULAR SIZES

PARA-DICHLOROBENZENE

SOLVAY
TRADE MARK REG. U.S. PAT. OFF.

SOLVAY SALES CORPORATION
Alkalies and Chemical Products Manufactured by
The Solvay Process Company **New York**

61 Broadway

SODA ASH • CAUSTIC SODA • AMMONIUM CHLORIDE
CHLORINE • MODIFIED SODAS • CALCIUM CHLORIDE
SALT • CAUSTICIZED ASH • SODIUM NITRITE
AMMONIUM BICARBONATE • CAUSTIC POTASH LIQUOR

Free-flowing
for
Shaker-Top
Cans

Clear,
clean crystals.
Meet the demands
of those who re-
quire the purest
and best

Write for
our quotation
on your needs

Perfumes For

THEATRE SPRAYS

It makes no difference whether you use alcohol or water as a base. We can supply an odor to meet your requirements—an odor that will prove popular with your customers.

A few suggestions

for alcohol base sprays

	Lb.
American Thistle No. 1010.	\$2.25
Lilac No. 59.....	2.50
Gardenia No. 1756.....	5.00
New Mown Hay No. 319.	2.75
Peony No. 446.....	4.00
Rose No. 310.....	2.50
Trefle No. 619.....	2.85
Violet No. 611.....	3.10
Wild Flowers No. 5300...	1.75

Used one ounce to two gallons
of alcohol—either full strength
or diluted

for water base sprays

	Lb.
Bouquet W. S. No. 636...	\$3.25
Honeysuckle W. S. No. 561	2.25
Narcissus W. S. No. 3855.	2.75
New Mown Hay W. S. No. 260	2.50
Lilac W. S. No. 19.....	2.50
Oriental W. S. No. 3858..	2.50
Rose W. S. No. 560.....	2.75
Trefle W. S. No. 4855....	3.00
Violet W. S. No. 261....	2.75

Used one ounce to three or
five gallons of water according to
strength desired



P. R. DREYER INC.

12 E. 12th Street

New York

"It's the Odor that Sells the Product"

CONTROL OF CLOTHES MOTHS

(From Page 87)

Dry cleaning and immersion of garments in cleaning fluid will accomplish these same ends more surely. All adult moths seen flying about the home should be destroyed, as their full complement of eggs may not have been deposited. Use liberally in closets and storage rooms twice a month or weekly a good liquid insecticide. The spray kills all stages of moth life by coming in contact with the same and can be used to advantage before or after clothing is brushed and aired. A liberal dose of such a spray should be used in treating cracks in floors, in crevices around baseboards where accumulations of wool lint or the hair from pet animals serve as a breeding place for clothes moths and carpet beetles. Liberal wetting with these sprays is very effective in destroying surface infestations of moth larvae in upholstered furniture.

The use of any of the above suggestions in a hit or miss fashion is no assurance of immunity from moth injury. Articles or wearing apparel freed from infestations by following the above suggestions can be safely put away, wrapped in several thicknesses of strong paper or in bags and boxes, especially made for this purpose, providing the packages or containers are moth tight. It is advisable, however, even after following the above treatment to scatter a generous amount of paradichlorobenzene crystals or naphthalene flakes among the folds of the garment so stored. Cedar chests which are moth tight are excellent for the storing of garments which have been treated as suggested above. Too much reliance should not be placed on the insecticidal value of the volatile oil constituents of the wood.

Products for Control

IN addition to the methods so far suggested, there are several well-known fumigants effective in combatting clothes moths, yet it is not advisable to recommend them to the inexperienced householder, except for use in boxes, chests or closets. The fumigation of rooms or the entire premises should be done by an experienced operator, regardless of the safeness of the material used, if results commensurate with the expense are to be assured. The householder under no circumstances should attempt fumigation with hydrocyanic acid gas, because it is a deadly poison. Sulphur fumigation is not recommended, because of the damage by the bleaching effect of the fumes. Because of the fire hazard of carbon bisulphide it should be handled with care. In the order of their effectiveness, carbon bisulphide, ethylene dichloride—carbon tetrachloride mixture and carbon tetrachloride are fumigants frequently used in chests, trunks and closets. Paradichlorobenzene and naphthalene are also extensively used and have already been mentioned in this connection. The effectiveness of these fumigants depends upon the building up of a lethal concentration of the material in vapor form in a confined space. Therefore, their usage in anything but an air tight space

DISINFECTANTS

Coal-Tar Pine Oil Cresol

A Seasonal Special

SECTOX

A fly spray with a Kill higher than the code requires, ready for use, priced right, sold only in bulk to the trade. An unusually fine spray product. Test a sample.

*We also wish to call your attention
to our new line of*

Floor Maintenance Materials

Lusterize—A water-emulsion wax which dries hard and glossy without rubbing. Waterproof, odorless, and conforming to all specifications.

All Brite—A high-grade neutral floor soap made especially for cleaning linoleum, rubber and asphalt tile.

Supersan Pine Floor Soap—For general floor scrubbing on terrazzo, tile, wood, and other types where a stronger cleansing action is desired.

Supersan Liquid Polishing Wax—Gives harder and glossier finishes than you have seen heretofore.

Let us send you samples and full information

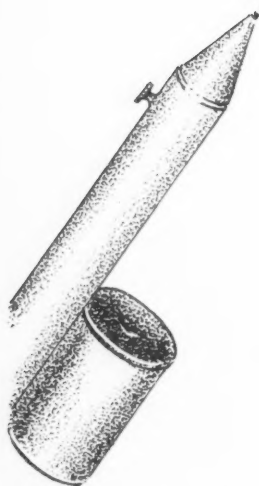
CHEMICAL COMPOUNDING CORPORATION

262 Huron St.,

Brooklyn, N. Y.

FRAGRANCE

the human side of insecticide



DEODORANTS

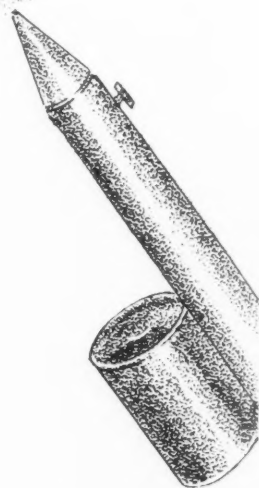
Neutroleum Alpha
Neutroleum Gamma
Pyrodene Deodorant

Modern insecticides are made with a thought for the "man behind the gun." They spray death to insects but cause no unpleasantness to humans . . . for modern insecticides are prepared with Fritzsche's DEODORANTS and PERFUMES. The ugly smell of kerosene or petroleum distillate is effectively neutralized by the deodorant and in its place is substituted a lovely fragrance by the perfume.

These recently developed preparations, the results of years of experimentation by Fritzsche's own chemists, have increased the sales of all insecticides using them.

Complete details regarding methods of application on request.

All are offered at extremely moderate prices.



PERFUMES

Orange Blossom
Honeysuckle
Cedar Pine
Trefle



FRITZSCHE BROTHERS INC.

Proprietors of
Parfumeries de Seillans
Seillans, France

118 W. Ohio Street
Chicago

78-84 BEEKMAN ST.
NEW YORK, N. Y.

Sole Agents in U. S. and
Canada for

Schimmel & Company
Miltitz (nr. Leipzig)
Germany

Fritzsche Brothers of
Canada, Ltd.
77-79 Jarvis St., Toronto

necessitates heavy dosages. Whereas these fumigants have been recommended for the treatment of infested furniture in homes and suggestions have been made to be followed by the householder, it would appear to the writer that such tasks could be taken care of more satisfactorily by an expert.

Hydrocyanic acid gas, chloropicrin, ethylene oxide alone or in combination with carbon dioxide are materials generally used by the exterminator or the service warehouse handling moth problem. Hydrocyanic acid gas is generally used if the entire premises are to be treated, and other of the above-mentioned fumigants may be employed if heavily infested materials are removed for fumigation in vaults. There have been developed new non-hazardous, non-inflammable fumigants for use against clothes moth and other pests.

The destructive effects of high and low temperatures are resorted to in some establishments familiar to the housewife, cold storage being employed for furs and rugs and high temperatures in some warehouses for infested furniture. Ordinary refrigeration in temperatures of about 40 deg. F. provide protection by stoppage of larval feeding but do not destroy the larvae which will stand temperatures ranging from 18 deg. F. to 25 deg. F. for considerable periods of time. If destruction of the larvae is to be accomplished in cold storage, a temperature of 18 deg. F. should be maintained for several days, then raising the temperature to about 50 deg. F. for a short time, then dropping back to 18 deg. F., and then returning to 40 deg. F. as the storage temperature. In northern states where these low temperatures are attained during the winter months, they may be taken advantage of by the householder for the destruction of moths in infested furniture. Alternate freezing and thawing will destroy these insects. Exposure to zero weather for a few hours will also accomplish these desired results. A temperature of 130 deg. F., maintained until all infested material reaches such a temperature, will also destroy all fabric pests. Of course where this method of treatment is utilized in warehouses there is apt to be some injury to the finish on the wood part of furniture.

All of the aforementioned precautions and treatments are essentially steps taken to actually kill the various stages of clothes moths, and do not, of course, with the exception of moth-free goods put in storage, provide any protection against subsequent infestation and damage. These remedies might, therefore, be considered as moth "killers" as contrasted to moth-proofing solutions, of which there are a few proprietary products available distributed for home use and employed extensively by servicing organizations in the treatment of upholstered furniture, rugs and other house furnishings. The cinchona alkaloids, fluorides and rotenone are favored for moth-proofing purposes. These products are of two kinds; consisting of compounds that are toxic to clothes moth larvae when ingested with food, and materials which are distasteful to moth larvae and act as deter-



HOOKER 'PARADI'

(Reg. U. S. Pat. Off.)

Hooker Paradichlorbenzene is specially prepared for use in the manufacture of moth preventives and deodorants and is offered in six standard crystal sizes.

Ready for immediate shipment in 200 and 100 pound barrels and 50 and 25 pound kegs.

HOOKER CHEMICALS

Caustic Soda	Benzyl Alcohol
Liquid Chlorine	Benzotrichloride
Bleaching Powder	Chlortoluene
Muriatic Acid	Aluminum Chloride
Monochlorbenzene	Antimony Trichloride
Ortho-dichlorbenzene	Arsenic Trichloride
Para-dichlorbenzene	Tin Tetrachloride
Trichlorbenzene	Ferrie Chloride
Tetrachlorbenzene	Ferrous Chloride
Hexachlorbenzene	Sulfur Monochloride
Sodium Benzoate	Sulfur Dichloride
Ammonium Benzoate	Sulfuryl Chloride
Benzoic Acid	Thionyl Chloride
Benzoic Anhydride	Acetyl Chloride
Benzoyl Chloride	Propionyl Chloride
Para-nitrobenzoyl Chloride	Alpha-Chloronaphthalene
Benzyl Chloride	Special Salt
	Hydrogen



HOOKER ELECTROCHEMICAL COMPANY

Eastern

**Plant—Niagara Falls, N. Y.
Sales Office—60 E. 42nd St., New York**

Western

**Plant—Tacoma, Washington
Sales Office—Tacoma, Washington**

Ⓢ 1527

INSECTICIDES

Without proper fragrance, insecticides and fly sprays will not appeal to the purchaser. Why not let him determine the sales value of your merchandise.

WE WILL ASSUME

part of your introductory cost by offering you for a limited time concentrated perfume odors for your products at a below cost figure.

Consider Our Laboratory Part of Your Organization

KEROL No. 1

A concentrated oil which will produce surprising results at a low cost.

Introductory price 45c. lb.

Regular price 60c. lb.

KERADOR No. 534

An especially pleasing fragrance having a concentrated strength which satisfactorily masks the odor of kerosene.

Introductory price 50c. lb.

Regular price 85c. lb.

Both introductory offers are good only until June 15, '34

BUDD AROMATIC CHEMICAL CO., Inc.

Essential Oils

PERFUME SPECIALTIES

Aromatic Chemicals

667 WASHINGTON ST., NEW YORK, N. Y.

U. S. Representatives

N. V. POLAK & SCHWARZ

Essencefabrieken.

DOBBINS *high pressure* CHEMICAL SPRAYERS



No. 35—3 qt. Capacity
No. 30—1½ gal. Capacity

We also manufacture other
Sprayers,
Sanitary Chemical Closets,
Mop Wringers,
and other metal specialties.

Controlled Atomization!

IT DOESN'T PAY TO TRUST TO LUCK.

If your product requires a sprayer for dispensing or application, the selection of the sprayer is of utmost importance to you.

Your success or failure in business depends largely on the effectiveness of your product.

PROPER ATOMIZATION is most essential to the effectiveness of Insecticides, Disinfectants, and Germicides.

CONTROLLED ATOMIZATION, through air regulator, is an exclusive patented feature of Dobbins high pressure Chemical Sprayers.

THE NOZZLE has a wide range of adjustment, from a forceful, penetrating spray, to a medium mist, or a fine floating fog, with in between variations by a slight turn of the air control valve.

DOBBINS Sprayers will solve your spray problems.



No. 10—1½ gal. Capacity.
A New Chemical Sprayer
with Air Regulator and
Volume Control

DOBBINS MANUFACTURING COMPANY

NORTH ST. PAUL
MINNESOTA

PORTLAND
OREGON

Write for NEW catalog and price list.

rents. To function the first group of materials, presupposes actual feeding on the part of the larvae; that is, a sufficient quantity of the proofed material must be consumed so that the larvae get a lethal dosage. With the other materials, larvae will leave treated fabrics and seek elsewhere for material upon which to subsist. With either of these types of "moth-proofer," supplementary killing measures are advisable. Inasmuch as the treatment with these materials depends on thorough impregnation of the fabric with the liquid, any sizable piece of proofing work should be taken care of by an expert. If used in the home power spraying equipment to insure effectiveness of the application should be employed. Although permanent protection has not been obtained with these moth-proofing solutions, experiments have shown that they do yield a degree of proofing that is of practical value. One of the most recent developments in this field is a proprietary product as toxic to moths as the usual liquid household insecticide, and containing an alkaloid immune to the destructive effects of light.

Literature

- Back, E. A. and Rabak, F. Red cedar chests as protectors against moth damage. U. S. D. A. Bu. Ent. Bulle. 1041, 1922.
- Back, E. A., and Cotton, R. T. Insect control in upholstered furniture. *The Furniture Warehouseman*, Vol. VI, 1926.
- Back, E. A., and Cotton, R. T. Effects of cold storage upon clothes moths. *Refrig. Engin.*, V. 13, pp. 365-366, 1927.
- Back, E. A. Clothes moths and their control. U. S. D. A. Farmers' Bull. 1353, pp. 1-28, 1931.
- Back, E. A. and Cotton, R. T. The control of moths in upholstered furniture. U. S. D. A. Farmers' Bull. 1655, 1932.
- Bottimer, L. J. Notes on paradichlorobenzene and naphthalene as repellents against clothes moth larvae. *Journ. Econ. Ent.*, V. 27, pp. 570-573, 1929.
- Cotton, R. T., and Roark, R. C. Ethylene dichloride-carbon tetrachloride mixture; a new non-burnable, non-explosive fumigant. *Journ. Econ. Ent.*, V. 20, pp. 636-639, 1927.
- Cotton, R. T. and Roark, R. C. Ethylene oxide as a fumigant. *Indus. Engin. Chem.*, V. 20, p. 805, 1928.
- Fernald, C. H. Clothes Moths. *Can. Ent.*, Vol. 14, pp. 166-169, 1882.
- Griswold, G. H. On the length of the adult life in the webbing clothes moth, *Tineola bisselliella*, Hum. *Annals Ent. Soc. Amer.* V. 24, pp. 761-764, 1931.
- Herfs, A. The destructive action of moths (Dermestids) and its prevention. *Melliand Textile Monthly*, V. 4, pp. 555-558, 1932.
- Herrick, G. W. Insects injurious to the household and annoying to man. The Macmillan Co., pp. 189-202, 1926.
- Moore, Wm. Methods of testing moth-proofing compounds. *Indus. Engin. Chem. (Anal. Ed.)*, V. 2, p. 365, 1930.
- Roark, R. C. Chemically combatting clothes moths. *Soap*, V. 3, No. 12, pp. 95-101, 1928.
- Scott, E. W., Abbott, W. S., and Dudley, J. E., Jr. Results of experiments with miscellaneous substances against bedbugs, cockroaches, clothes moths and carpet beetles. U. S. D. A. Bull., No. 707, pp. 16-29, 1918.
- Spencer, G. T. An important breeding place of clothes moths in homes. *Can. Ent.*, V. 63, pp. 199-200, 1931.
- Thomas, W. The use of liquid insecticides for preventing moth damage. *Soap*, V. 9, No. 8, p. 89, 1933.
- Vollmer, O. Kleidermotten als fresser lebender zecke. *Z. angew. Ent.*, V. 18, pp. 161-174, 1931.
- Whitmarsh, W. D. Insect pests of the household. *Ohio Agric. Exper. Sta. Bull.* 253, pp. 119-123, 1912.
- Wolff, F. W. Paradichlorobenzene as an insecticide and deodorant. *Soap*, V. 9, No. 7, p. 97, 1933.

SHERWOOD'S DI=BUG KILLS

DI-BUG PYRETHRUM EXTRACTS NO. 20 AND NO. 5 have exceptionally high killing power.

DI-BUG STEAM-O-CIDE is especially effective in steam and electric sprayers.

DI-BUG CATTLE SPRAYS
Effective and protective

DI-BUG INSECTICIDE
Unperfumed and perfumed.
(Sold in bulk to jobbers only)

DI-BUG PYRETHRUM FLOWERS, Whole, Granular, Fine Powdered.

ALL PYRETHRUM PRODUCTS TESTED BY PEET-GRADY METHOD.

DI-BUG SPRAYSENE
A petroleum oil refined to practically complete freedom from kerosene odor.

SHERWOOD
PETROLEUM COMPANY, INC.

Bush Terminal - - - Brooklyn, N. Y.

BRANCHES

Chicago, Ill.	Memphis, Tenn.
Detroit, Mich.	Atlanta, Ga.
Boston, Mass.	New Orleans, La.
Philadelphia, Pa.	Birmingham, Ala.
REFINERY—WARREN, PA.	

Consider

These Facts When You Look for a Source of Supply for SANITARY SPECIALTIES

● **LOCATION**

The Chemical Supply Company is located in the heart of the population and industrial center. Jobbers will find the excellent rail, water and motor facilities a great help in assuring early delivery to their customers.

● **RELIABILITY**

The Chemical Supply Company was established in 1898. Its financial responsibility is of the best. Its management is active and aggressive. Its line is complete in every way to permit you to deal with one large responsible concern that can give you every needed advantage in quality, quantity and service at lowest cost.

● **SATISFACTION**

Our background of manufacturing, experience and continual experimenting keeps our products in a class by themselves. Consequently, they command a better price and above all, they assure your customers satisfaction and good will.

We can give you many more reasons why we believe you can purchase more profitably from us and we earnestly ask that you consider us as the most logical and economical source of supply.

Write for samples and quotations.

THE CHEMICAL SUPPLY COMPANY

2450 CANAL ROAD

CLEVELAND, OHIO

Disinfectants — Insecticides — Metal Polish — Dips — Oils — Sanitary Specialties

BENETCO PRACTICAL POR-PAILS WILL HELP INCREASE YOUR SALES



These practical Por-Pails — attractively decorated with your sales message will help you increase original sales and repeat business.

They are easy to fill and convenient to use. They insure the safe delivery of your product—and your trade name is kept constantly before users and prospects.

Write For Samples and Prices, Now!

Benetco Pails, Drums, and Barrels are made in every practical size and style—1 to 65 gallon.

**Wilson & Bennett
Mfg. Co.**

6528 S. Menard Ave.
Chicago, Ill.
Republic 0200

Eastern Office & Factory
353 Danforth Ave.
Jersey City, N. J.
Delaware 3-4700

Southern Office & Factory
Cortez and Bienville Sts.
New Orleans, La.
Galvez 2171

INSECTICIDE-DISINFECTANT PROGRAM

(From Page 85)

Continental Can Co., 4622 West North Ave., Chicago. The riders will meet in the Continental room at ten-thirty Sunday morning and will leave together for the stables. The ride will be across country, leaving about noon and returning about five. At the half way mark, riders will lunch together at a roadside inn. A flat rate of five dollars for each horse has been obtained. The same afternoon golfers will have their innings under the chairmanship of Max Goodrich, H. D. Hudson Mfg. Co., 589 E. Illinois St., Chicago. Golfers will meet in Mr. Goodrich's room at one o'clock and will travel in private cars to the Wilmette Country Club, about a half-hour from the hotel. Green fees will be two dollars with a small additional charge for those who need clubs from the pro shop. It is important that members interested in either golf or riding communicate with the respective chairmen as far in advance as possible. Riders should specify the type of horse they want and golfers should indicate whether or not they will need clubs. Unless the chairmen are able to make plans in advance someone may be disappointed.

Bridge experts, fiends and dubs will perform in a private room Monday night. Hand or mail your entry, with one dollar, to A. L. van Ameringen, van Ameringen-Haebler, Inc., 315 Fourth Ave., New York. Two tournaments will be run, one for auction fans and the other for contract players. Four hands will be played at each table, with game scoring, with the two winners moving up to play opposite each other. Entry fees will be used to provide "appropriate refreshments."

Advance indications point to a larger attendance at the Tuesday night banquet than ever before. This, naturally enough, means a more enjoyable evening for all who attend. The party, in the form of a beef-steak dinner, will get under way at seven. A five-piece orchestra, plus strolling singers, will entertain throughout. As soon as the dinner is over, a floor show will start. A bill embracing ten of Chicago's best known night club acts will be presented. With all of this talent, the show should run well into the night. Tickets for the banquet will be included with the convention registration fee or may be purchased separately if desired.

X-Termador Co., Springfield, Mass., manufacturer of the X-Termador electric steam vaporizer for insect extermination, is being reorganized with considerable additional paid-in capital. The company, headed by Matthew Russell, plans a wide expansion in the manufacture and sale of its machine which will be made in three sizes and sold at lower prices than heretofore. The company states that several additional patent claims on its machine have been allowed. It has also made public a communication from the Agricultural Extension Service of the State of Maine regarding the unusual success with the equipment in ridding hen houses and other farm buildings of vermin.

Barrett Standard

CHEMICALS

Barrett Standard Chemicals are produced to strict specifications under rigid scientific control. The result is uniformly dependable, high-quality products.

A competent Barrett Technical Staff will gladly assist you in production problems involving the use of Barrett Standard Chemicals. Phone, wire or write.



BARRETT STANDARD CHEMICALS

PHENOL (Natural)

U. S. P. 39.5° M. Pt. and 40° M. Pt.

Technical 39° M. Pt.

Technical 82-84% and 90-92%

CRESOL

U. S. P., Meta Para, Ortho, Special Fractions.

CRESYLIC ACID

99% Straw Color and 95% Dark.

XYLENOLS

TAR ACID OILS

NAPHTHALENE

Crude, Refined Chipped, Flake and Ball.

PYRIDINE

Refined, Denaturing and Commercial.

HYDROCARBON OIL . . . BENZOL . . .

TOLUOL . . . XYLOL . . . SOLVENT

NAPHTHA . . . HI-FLASH NAPHTHA



THE BARRETT COMPANY

40 RECTOR ST.

NEW YORK, N. Y.

"SERRID" PRODUCTS of DERRIS ROOT

For Fly Sprays

"SERRID" DOUBLE X

A combination Rotenone pyrethrum oil concentrate that will stay in solution,—a decided improvement in the field. Sold on a kill basis as high as 85%. With this base manufacturers may improve their product and lower their costs.

For Agricultural Sprays

"SERRID" SUPERSPRAY

A finished concentrated liquid plant spray sold in bulk for re-packaging. Highly effective against mealy bug and red spider. Tested and proven by prominent entomologists.

A complete range of Derris products uniform as to qualities, standardized as to Rotenone content, and sold on this basis. Available in large quantities to manufacturers of insecticides.

DERRIS, Inc.

79 WALL STREET, NEW YORK



Powdered Root, standardized, is most effective in household powders. For protection of vegetable and fruit crops, powdered Derris Root is not only efficacious but leaves no poisonous residue.

NO "COME BACKS"
Get 100% Fumigation Results the FIRST time



ZYKLON DISCOIDS
PACKAGED FUMIGATION

KILL all insects, rats, mice with ZYKLON Discoids. Get 100% kills on every job. ZYKLON Discoids contain a uniform quantity of commercially pure H.C.N.—a ready-to-use product. You can figure dosage exactly. Just cut open the can and scatter the discs into the space to be fumi-

gated. Here is fumigation reduced to an exact science!

ZYKLON Discoids will help you to earn a reputation for doing a thorough job the first time. That means more business for you.

You'll find lots of useful information in our Fumigation Manual. It's Free. Send the coupon to nearest office.



American Cyanamid & Chemical Corporation
Insecticide Division
30 Rockefeller Plaza, New York, N. Y.
Dwight Bldg., Kansas City, Mo. Azusa, Calif.

Send me free and without obligation the "Handbook of Practical Fumigation with ZYKLON DISCOIDS".

Name _____
Address _____

ESTIMATION OF PYRETHRINS

(From Page 91)

The most characteristic reaction of the chrysanthemum mono carboxylic acid is that with Denigés Reagent, the mercury sulphate reagent of the U. S. P. X.

If an excess of the reagent is added to an aqueous solution of the acid, a faint pink color appears at once, which gradually deepens until similar to an alkaline phenolphthalein color. The color changes to a blue red, then purple and then blue and finally a blue with a bronze tint. On further standing greenish shades develop with the formation of a yellow brown precipitate. These changes are hastened by heating to 60° C. On boiling a brownish precipitate forms. On filtration the solution contains mercurous salts which is shown by the precipitation of calomel on the addition of hydrochloric acid. This reaction will detect 0.5 mg. in a volume of 10 c.c.

The dicarboxylic acid gives no color changes with the mercury reagent but on long standing or by heating deposits a precipitate similar to that of the mono acid. The filtrate from the precipitate contains mercurous mercury.

TYPICAL ANALYSES

FLOWERS		
Pyrethrin I.	Pyrethrin II.	Total
0.48%	0.60%	1.08%
0.49%	0.54%	1.03%
0.41%	0.49%	.90%
0.40%	0.51%	.91%
0.38%	0.53%	.91%
0.40%	0.59%	.99%
0.30%	0.39%	.69%
0.24%	0.35%	.57%
0.29%	0.37%	.66%
0.46%	0.59%	1.05%
0.50%	0.40%	.90%
0.32%	0.43%	.75%
0.17%	0.24%	.41%
0.04%	0.05%	.09%

EXTRACTS

grams per 100 c.c.:		
0.12	.126	.246
0.57	.80	1.37
2.20	2.45	4.65
1.38	1.38	2.76
.05	.058	.108
.065	.085	.15

References

- (1). Staudinger and Ruzicka—Helv. Chim. Acta. 7, 177-201; 201-211; 212-235; 236-244; 245-259; 377-390; 406-441; 442-448; 448-458. 1924.
- (2). Tattersfield and Hobson—J. Agr. Sci. 19, 433-437. 1929.
- (3). Wilcoxson and Hartzell—Contrib. Boyce Thompson Institute. 5, No. 1, 115-127. 1933.
- (4). Wilson—Soap—September—84. 1933.
- (5). Gnadinger and Corl—J. Am. Chem. Soc. 52, 681-8. 1930.
- (6). Gnadinger and Corl—J. Am. Chem. Soc. 51, 3054-64. 1929.
- (7). Martin and Tattersfield—J. Agr. Sci. 21, 115-135. 1931.
- (8). Staudinger and Harder—Ann. Acad. Sci. Fennicae—A 29, No. 18, 1-14. 1927.
- (9). Tattersfield, Hobson and Gimingham—J. Agr. Sci. 19, 266-296. 1931.
- (10). Vollmar—Ind. Eng. Chem., Anal. Ed. 3, 110-2. 1931.

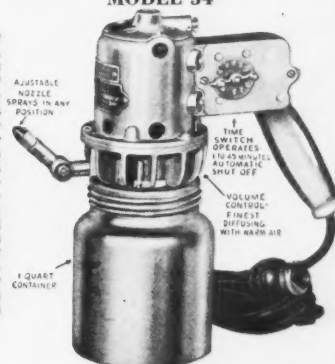
Reliable Manufacturing Co., sanitary supplies, formerly of Knoxville, Tenn., has moved its plant to Jellico, Tenn.

HERE IT IS!

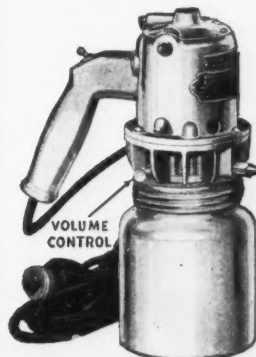
AUTOMATIC—SAFE—TROUBLE FREE FINEST CONTROLLED ATOMIZATION WITH THE NEW TORNADO ELECTRIC SPRAYER

MODEL 54

Here is the new sprayer you've been looking for. It features an automatic time switch set at any point from 1 to 45 minutes—sprays desired amount without any attention whatever—automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. Don't fail to get the facts on this new type sprayer before buying.

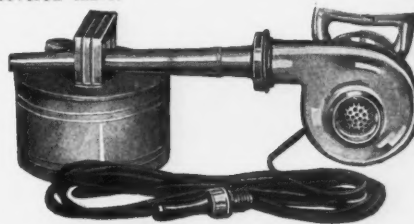


Also Most Complete Line of Electric Sprayers to Enable You to Meet Every Spraying Problem



Model 53 new Compressor Type unit with new adjustable volume control. Will break insecticide into finest mist and gas formation mechanically obtainable. Floats throughout spraying area for many minutes—a truly de luxe model! 1/8 H.P. G.E. Universal Motor. 1 quart metal container. 20' of rubber covered cable.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8' to 10'. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20' of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18' to 20'. 1/3 H.P. G.E. Universal Motor, Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industries, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

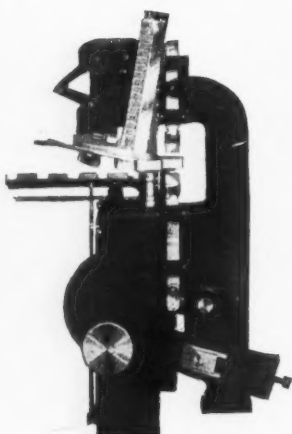
BREUER ELECTRIC MFG. CO.

862 Blackhawk Street

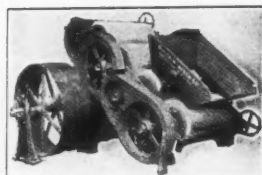
Chicago, Ill.

We do not sell insecticides. Our business is manufacturing sprayers.

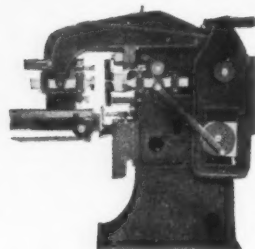
Special Offerings of SOAP MACHINERY Completely Rebuilt!



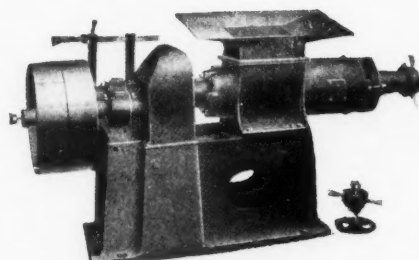
Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our own shops.



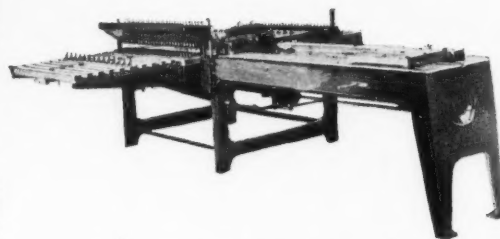
H-A SOAP MILL
This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls.



4 JONES AUTOMATIC
combination laundry and toilet soap presses. All complete and in perfect condition.



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.



2 Automatic Power Soap Cutting Tables

NEW CRUTCHERS!



This Newman brand new, all steel steam jacketed soap crutcher. Will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap in addition to other new soap machinery such as frames, cutting tables, etc. Send for complete list.

ADDITIONAL USED SOAP MACHINERY

H-A 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.
Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.
Ralston Automatic Soap Presses.
Scouring Soap Presses.
Empire State, Dopp & Crosby Foot Presses.
2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.
H-A 4 and 5 roll Steel Mills.
H-A Automatic and Hand-Power slabs.
Proctor & Schwartz Bar Soap Dryers.
Blanchard No. 10-A and No. 14 Soap Powder Mills.
J. H. Day Jaw Soap Crusher.
H-A 6, 8 and 10 inch Single Screw Plodders.
Allbright-Nell 10 inch Plodders.
Filling and Weighing Machines for Flakes, Powders, etc.
Steel Soap frames, all sizes.
Steam Jacketed Soap Remelters.
Automatic Soap Wrapping Machines.
Glycerin Evaporators, Pumps.

Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.
Perrin 18 inch Filter Press with Jacketed Plates.
Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.
Day Grinding and Sifting Machinery.
Schultz-O'Neill Mills.
Day Pony Mixers.
Gardiner Sifter and Mixer.
Proctor & Schwartz large roll Soap Chip Dryers complete.
Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.
Day Talcum Powder Mixers.
All types and sizes—Tanks and Kettles.
Ralston and H-A Automatic Cutting Tables.
Soap Dies for Foot and Automatic Presses.
Broughton Soap Powder Mixers.
Williams Crutcher and Pulverizer.
National Filling and Weighing Machines.

All used equipment rebuilt in our own shops and guaranteed first class condition.

Send us a list of your surplus equipment—we buy separate units or complete plants.

NEWMAN TALLOW & SOAP MACHINERY COMPANY

1051 W. 35th ST.
CHICAGO

Our Forty Years Soap Experience Can Help Solve Your Problems

CLASSIFIED ADVERTISING

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 136 Liberty St., New York.

Note: All advertisements must be in publisher's hands by the first of the month for that month's issue.

Positions Wanted

Soapmaker—Well versed in the manufacture of all kinds of soaps, seeks new connection. Location immaterial. Address Box No. 361, care *Soap*.

Soapmaker—laundry, toilet, soda or potash soaps. Also perfumer—extracts, toilet soaps and preparations. Can install plants. Address Box No. 360, care *Soap*.

Position Wanted—By reliable soapmaker with a broad knowledge of soapmaking and many years of practical experience. Address Box No. 362, care *Soap*.

Chemical Engineer, Plant Superintendent—Thoroughly and widely experienced in the manufacture and production of cold made and boiled soaps on large scale. Address Box No. 364, care *Soap*.

Soapmaker and Chemist—With long years' experience and excellent past record as expert in the manufacture of all kinds of soap desires new connection with progressive concern. Address Box No. 369, care *Soap*.

Soapmaker—13 years' experience in toilet, soft, mottled and bar soaps; thoroughly experienced in laboratory work; capable of taking charge—wishes new connection. Address Box No. 368, care *Soap*.

Insecticide Man—With many years' experience in large company selling nationally advertised household line,—later as general manager,—desires new connection in household insecticide, drug or allied field. Box No. 371, care *Soap*.

Salesman—Experienced selling industrial chemicals, essential oil, crude drugs, flavors, soaps, janitor supplies, etc., wishes to represent manufacturer in the Kansas City territory or the southern states, have office and well financed. Address Box 340, care *Soap*.

WARREN SOAP

Manufacturers of Specialty Soaps
Since 1868

Potash Oil Soaps
Emulsifying Agents
Solvent Soaps
Cleaning Compounds
Private Formulas
Industrial Soaps

Automobile Soaps
Liquid & Paste
Liquid Soaps
Soap Powders
Forrester's Soaps
To increase the spread and adherence of Insecticides

The Warren Soap Mfg. Co.

Incorporated

Kendall Square Bldg., Cambridge, Mass.

SOAP MACHINERY

Every item shipped from our shops at Newark, N. J., is thoroughly overhauled and rebuilt before shipment.

SPECIALS

- 1—Soap Chip Dryer, 1200 lb.
- 2—Dopp 650 gal. Steam Jacketed Kettles.
- 1—Dopp 1200 lb. Steam Jacketed Crutcher.
- 1—Hershey 1000 lb. Horizontal Jacketed Crutcher.
- 1—1000 lb. All Steel Soap Powder Mixer.
- 2—Holmes & Blanchard 24" and 36" 4 cage Disintegrators, for grinding soap powder—no screens, no plugging.

- 25—Soap Frames, 60"x45½"x14", with trucks.
- 6—Plodders, Houchin, Rutschman, 4", 4½" double screw, 6", 8", 10".
- 14—Filter Presses, 42"x42" to 12"x12".
- 8—Granite Mills, 3 and 4 roll, 12", 18" and 24".
- 15—Horizontal Mixers, Jacketed and Plain, 15 gal. to 1000 gal.

MISCELLANEOUS—Kettles, Mixers, Pony Mixers, Powder Fillers, Tube Fillers, Labelers, Soap Presses, Soap Wrappers, Tanks, Boilers, Pumps, etc.

Send for Latest Bulletin.

**CONSOLIDATED
PRODUCTS COMPANY, INC.**

15-21 Park Row, N. Y. C. BArlclay 7—0600

We buy your idle Machinery—Single items or entire plants.

found money

If you are not using Vioflor you are throwing away 40% to 70% of your cost for perfuming insecticides, naphthas, polishes, inks, para-blocks, etc

Without changing the odor effect now in your product!

It takes but a few minutes to demonstrate this.

Allow us to submit samples and further details.

Manufactured by CREPIN & DOUMIN, Ltd.,
London, England

Sold in the United States and Canada by

JOHN POWELL & CO., Inc.
114 East 32nd Street :: :: New York, N. Y.

ANT **Lethelin** BAIT JELLY

LETHELIN JELLY is a clean odorless ANT-BAIT which is deadly against ant infestations. Effective where other products fail. Wipes out the nests, completely eradicating colonies. Economical to use, indoors or out. For house ants, golf greens, lawns, greenhouses, etc. Equally effective on roaches, rats and mice. A stable jelly which will not melt in the sun or at ordinary temperatures. Used as directed, Lethelin Jelly will not harm vegetation.

Lethelin Jelly is packed in three sizes of tubes, 1/2 oz., 1 1/2 oz., and 6 oz. and also in 5 lb. cans. The small tubes are designed to sell retail at 25c and 50c. The large tubes for exterminators' use, and estates, golf clubs, etc., retail at \$1.75. The 5 lb. can retails at \$10.00.

For the Jobber—

Lethelin Jelly is a profitable item for resale to stores, clubs, florists, etc., to build repeat orders.

For Exterminators—

Lethelin Jelly is an effective, handy product to use. Certain and economical. Try it once—you'll use it always.

LETHELIN PRODUCTS CO., Inc.

Wright Bldg.

Manhasset, N. Y.

UNIFORM
FREE FLOWING
READILY SOLUBLE
CRYSTALLINE OR GLOBULAR
TRI SODIUM PHOSPHATE

SWANN CHEMICAL COMPANY
BIRMINGHAM
Division of
THE SWANN CORPORATION
District Offices

Charlotte
Cleveland

New York

Dallas
St. Louis

F. & S.

Quality Colors
for
TOILET SOAPS
LIQUID SOAPS
TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.

205 FULTON STREET
NEW YORK, N. Y.

Import—Manufacture—Export

Positions Open

Wanted: Sales representative having following among insecticide manufacturers, janitor supply houses, exterminators. Write in full stating territory covered, experience, etc. Address Box No. 363, care *Soap*.

Wanted: Alert young man for southern territory to sell a well-known line of disinfectants, liquid soaps, deodorizing cakes, shampoo bases, etc. Address Box No. 355, care *Soap*.

Opening in medium size soap factory for an assistant to kettle department foreman. Technical training preferred. Good opening for some young man anxious to learn the complete processes of soap manufacture. Address Box No. 354, care *Soap*.

Competent Soapmaker on chips, oil soaps, and powders. Must have initiative and not afraid to work. Chicago territory. Give full particulars, stating age and salary wanted. Address Box No. 357, care *Soap*.

Salesman with knowledge of soaps and cleaners selling for old established manufacturers. Give qualifications. Address Baum's Castorine Co., Rome, N. Y.

WOOL GREASE

ARLINGTON MILLS BRAND

for manufacturers of

**TEXTILE SOAP
LEATHER SOAP
SPECIALTIES**

"Arlington Mills" WOOL GREASE is the ideal low cost raw material for use in the manufacture of textile and leather soaps, oils and specialties. We are now offering a product of exceptional merit, free from sulfur and of low moisture and ash content. May we figure on your requirements?

W. L. MONTGOMERY & CO., Inc.
89 BEACH STREET BOSTON, MASS.

STEEL DRUMS

That are built to last!



30-55-110 gal. sizes

The BEST
Containers for
LIQUID SOAPS
DISINFECTANTS
CLEANSERS
ESSENTIAL
OILS
VEGETABLE
OILS
CHEMICALS
GLYCERIN
ETC.

Black, Galvanized,
Tinned

Sturdy and long lasting, the Trageser heavy duty steel drum will be carrying your materials to market long after cheap containers have found the junk pile. Order a sample drum.

JOHN TRAGESER STEAM COPPER WORKS
GRAND STREET MASFETH, L. I., N. Y.

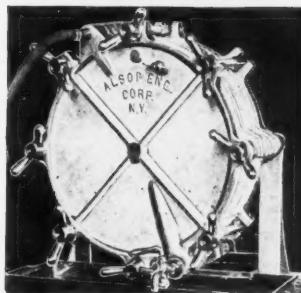
Special tanks, tubs, pails, etc.

Real SPARKLE that spells

S · A · L · E · S

is produced by

HY-Speed FILTRATION



Extreme brilliance and sparkle will greatly increase the sales-appeal of your liquid product.

HY-SPEED ultra-fine disc filters are used by the leading manufacturers of liquid soaps, deodorants, disinfectants and kindred solutions for they add attractiveness and "eye appeal" to a naturally dull liquid. Clearness and brilliancy mean many more sales.

These filters come with 2 to 100 discs; will polish 1 to 50 or more gallons a minute. They can't be beat and we'll prove it with a free trial. Ask for it—no obligation.

MFRS OF BOTTLE FILLERS * MINERS
GLASS COATED TANKS * PUMPS * ETC.

Write for complete catalog

ALSOP

ENGINEERING
CORPORATION

39 West 60th St.

New York City

**We Manufacture
For The Trade ONLY**

Liquid Soap Base
Auto Soaps
Potash Oil Soap
Shampoo
U.S.P. Cresol Compound
Coal Tar Disinfectants
Liquid Soap
Pine Oil Soap
U.S.P. Green Soap
Shampoo Base
Pine Oil Disinfectants
Insecticides

Ask for samples of these specialty bulk products

HARLEY SOAP CO.

2852 E. Pacific St.

Philadelphia

**ISOLATION PROCESS
PYRETHRUM
CONCENTRATION AND
EXTRACTION**

No possible trace of foreign solvent can remain in the extract—the entire process employs only hydrocarbon distillate.

Complete solubility of this extract—the base of fly sprays as well as the extract being hydrocarbon distillate.

No destruction of the color or odor principles of the flowers—the process is based on ordinary percolation without heat.

Complete solution of the killing principles of the flowers—hydrocarbon distillate is the most natural solvent.



No. 20

**CONCENTRATED PYRETHRUM
EXTRACT**

ISOLATION PROCESS

KILL-COLOR-ODOR

AN-FO MFG. COMPANY, OAKLAND, CALIF.

COLORS

**FAST GREEN FOR SOAP
FAST TO SOAP BY ANY PROCESS**

Boiled

Half Boiled

Cold

Transparent or

Liquid

Proved for thirty years

W 710 BLUISH GREEN

W 709 OLIVE GREEN

A. C. DRURY & CO., INC.

International Merchants

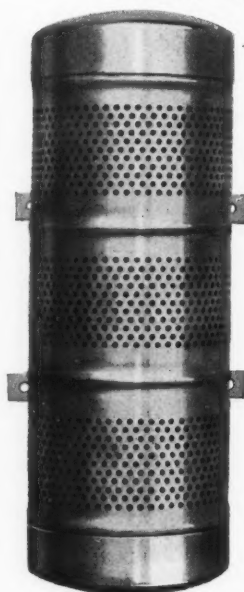
Essential Oils—Waxes—Talc—Clay Colors—Zinc Oxide, etc.

219 EAST NORTH WATER ST.

CHICAGO

GARNET

*The Largest Manufacturers of
Sanitary Appliances Since 1899*



**"UNIVERSAL"
Deodorizing
Block
CONTAINERS**

Perforated Containers. Neat in Design. Made of Heavy Metal. Side or rear fasteners. The oldest and best on the market.

OXIDIZED NICKEL-PLATED
or White Enamel Finish

4 SIZES

No. 1 For 1/2 lb. Block
No. 2 For 3/4 lb. Block
No. 3 For 1 lb. Block
No. 4 For 2 lb. Block

We Also MANUFACTURE
Liquid Soap Dispensers
Automatic Drip Machines
Floor Oilers
and the Famous
"MAC" MOPS

*Send For Our Catalogue and
Price List*

**You can make Big Profits
with Garnet Products.**

Garnet Chemical Corp.

911-925 North Lumber Street
Dept. K Allentown, Penna.

Miscellaneous

Can you sell a reputable No Rubbing Floor Wax under your or retailers' own label? For particulars and free sample, Address Box No. 366, care *Soap*.

For Sale: A pyroxylin liquid shoe polish on a royalty or outright purchase. The polish requires no polishing or rubbing—leaves a bright luster. Address Box No. 356, care *Soap*.

Wanted—Company manufacturing hair specialties with distribution in U. S. and Canada desires to acquire or combine with going concern in similar or parallel line. Will arrange meeting for conference. Address Box No. 367, care *Soap*.

Wanted—To complete files. Copy of *Soap* for March, 1931, and for May, 1933. Please write to Box No. 370 if available.

Formula Wanted—Will pay \$50.00 for formula of unusual merit for naphtha base non-separating metal polish. Address Box No. 358, care *Soap*.

Insecticide Manufacturers: The address of owner of patents U. S. reissue 18667 and Canadian 293233 relating to *cube* roots is W. J. Dennis, 1540 10th St., Des Moines, Ia.



Deodorizing AND MOTHPROOFING Blocks

PLAIN AND PERFUMED

MADE WITH NAPHTHALENE OR PARA BASE

NAPHTHALENE FLAKES, CHIPS, etc.

DISINFECTANTS EMULSION AND SOLUBLE TYPES

FLY SPRAYS HOUSEHOLD SPRAYS CATTLE SPRAYS



THE WHITE TAR COMPANY

OF NEW JERSEY, INC.
PHONE KEARNY 2-3600

BELLEVILLE PIKE

KEARNY, N. J.

NEW AND REBUILT SOAP MACHINERY

We offer to the trade our NEW IMPROVED 600 and 1,200 lb. FRAMES, SLABBERS, CUTTING TABLES, FOOT PRESSES, etc. Send for details.

- 4—Soap Presses, Foot and Power
- 1—Huber Slabber
- 1—Jones Automatic Soap Press
- 1—Proctor Soap Chip Dryer, complete
- 4—6, 8 and 10 in. Plodders
- 1—5 Roller Steel Mill
- 1—Soap Boiling Kettle
- 3—Jacketed Vertical Crutchers
- 3—1,500 lb. Horizontal Crutchers
- 200, 600, 800 and 1,200 lb. Frames

Cutting Tables, Slabbers, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, Frames, Pulverizers, Grinders, Amalgamators, Mixers, etc.

Send for Complete List (Bulletin No. 15)

We buy and sell from single items to complete plants.

Stein-Brill Corporation

183 Varick Street

New York, N. Y.

Phone:

Cable Address:

Walker 5-6892-3-4

"BRISTEN"

"FILMA-SEAL"

(the double seal of cap and film)



Prevents evaporation and leakage of Chloroform and other volatile products

STOPS Tampering and is a guard against Counterfeiting.

Furnished with our C. T. Screw Caps or inserted in our plastic caps.

Quickly Applied No added labor cost.

FERDINAND GUTMANN & CO.

Established 1890

BROOKLYN

NEW YORK

U. S. Patents Trade Marks Reg. Pats. Pending

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 122, for page numbers. "Say you saw it in SOAP."

ALKALIES

American Cyanamid & Chemical Corp.
Columbia Alkali Co.
Dow Chemical Co.
Hooker Electrochemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Stauffer Chemical Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Monsanto Chemical Co.
Naugatuck Chemical Co.
Newport Chemical Works
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chemical Compounding Co.
Chemical Supply Co.
Clifton Chemical Co.
Curran Corp.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fergusson Laboratories
Fuld Bros.
Harley Soap Co.
J. L. Hopkins & Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
Lethelin Products Co.
New York Soap Corp.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
U. S. Sanitary Specialties Corp.
Warren Soap Mfg. Co.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American Cyanamid & Chemical Corp.
Bowker Chemical Co.
Columbia Alkali Co.

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Mechling Bros. Chemical Co.
Monsanto Chemical Co.
Newport Chemical Works
Niagara Alkali Co.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Stauffer Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid oil, etc.)

American Cyanamid & Chemical Corp.
Baird & McGuire, Inc.
Barrett Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

CONTAINERS

Continental Can Co. (Tin Cans)
Maryland Glass Corp. (Bottles)
Metal Package Corp. (Tin Cans)
Owens-Illinois Glass Co. (Bottles)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Garnet Chemical Corp.
Palmer Products, Inc.
U. S. Sanitary Specialties Corp.

ESSENTIAL OILS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Maybee & Reynard, Inc.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

(Continued on Page 120)

Consulting Chemists and Engineers

Specializing in Soaps, Disinfectants, Insecticides, Polishes, Etc.

PEASE LABORATORIES, Inc.

Chemists, Bacteriologists, Sanitarians

**39 West 38th Street
New York**

Food, Drug and Cosmetic Problems—Compliance with
Official Requirements—Meeting New and Anticipated
Competitions with Improved and New Products

H. A. SEIL, Ph.D

E. B. PUTT, Ph.C., B.Sc.

SEIL, PUTT & RUSBY, INC.

Analytical and Consulting Chemists

Specialists in the Analysis of Pyrethrum Flowers, Derris Root,
Barbasco, or Cube Root—Their Concentrates
and Finished Preparations

ESSENTIAL OILS

SOAP

16 East 34th Street, New York, N. Y.

STILLWELL AND GLADDING, Inc.

Analytical and Consulting Chemists

Members Association of
Consulting Chemists and Chemical Engineers

80 West Street

New York City

KILLING

strength of Insecticides

by PEET GRADY METHOD

(Official proposed code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)

*We raised and killed more than 1 million flies
in the last 2 years.*

ILLINOIS CHEMICAL LABORATORIES, INC.
1164 WEST CERMAK ROAD CHICAGO, ILL.

Skinner & Sherman, Inc.

246 Stuart Street, Boston, Mass.

Bacteriologists and Chemists

Disinfectants tested for germicidal value or phenol co-
efficient by any of the recognized methods.

Research—Analyses—Tests

Entomological Testing Laboratories, Inc.

We offer you a medium for purchasing insecticides
on an intelligent basis.

Entomological testing by the Peet-Grady method,
and chemical examination of insecticides are available.

114 E. 32nd St.

New York, N. Y.

TAUB LABORATORY

Harry Taub, Director

115 West 68th Street, New York City

Analytical and Consulting Chemists

Specializing in Antiseptics, Disinfectants, Insecticides and
Cosmetics

Technical Formulae Developed

Phone TRafalgar 7-1733

CONSULTANTS

offering their services to manufacturers of soaps
and sanitary specialties should apprise the in-
dustry of their facilities through this profes-
sional card department, SOAP reaches 2,200
manufacturers who need help of a professional
nature.

Streamlining the automobile has
increased automobile sales. What
have you done to "streamline"
your products?

Foster D. Snell, Inc.
Chemists—Engineers
305 Washington St.,
Brooklyn, N. Y.

RAW MATERIAL and EQUIPMENT GUIDE

(Continued from page 118)

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 122, for page numbers. "Say you saw it in SOAP."

MACHINERY

Alsop Engineering Co. (Liquid Handling Equip.)
Blanchard Machine Co. (Soap Powder)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
Illinois Steel Co. (Stainless Steel)
R. A. Jones & Co. (Automatic Soap Presses
and Cartoning Machinery)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packaging Machinery)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

METAL CAPS

Anchor Cap & Closure Corp.
Ferdinand Gutmann & Co.

MISCELLANEOUS

Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

Industrial Chemical Sales Co.
Leghorn Trading Co.
W. L. Montgomery & Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Theobald Annual By-Products Refinery
Welch, Holmes & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.

PERFUMING COMPOUNDS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

PETROLEUM PRODUCTS

Anderson-Pritchard Oil Corp.
Sherwood Petroleum Co.
L. Sonneborn Sons

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrethrum Extract, Derris Products

An-Fo Mfg. Co. (Extract)
W. Benkert & Co.
Derris, Inc.
J. L. Hopkins & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
S. B. Penick & Co.
John Powell & Co.
Sherwood Petroleum Co.
Cyrus Ward & Co.

SOAP COLORS

A. C. Drury & Co.
Fezandie & Sperrle
Interstate Color Co.
Pylam Products Co.

SOAP DISPENSERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Garnet Chemical Corp.
Palmer Products
U. S. Sanitary Specialties Co.

SODIUM SILICATE

American Cyanamid & Chemicals Corp.
General Chemical Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Electric Sprayit Co.
Hudson Mfg. Co.
Lowell Sprayer Co.
U. S. Sanitary Specialties Corp.
J. A. Vaughan Mfg. Co.

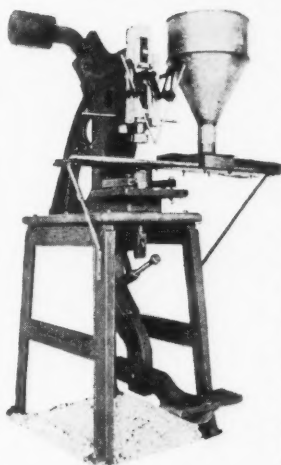
STEEL CONTAINERS

John Trageser Steam Copper Works (Pails and Drums)
Wilson & Bennett Mfg. Co. (Pails and Drums)

TRI SODIUM PHOSPHATE

American Cyanamid & Chemicals Corp.
Bowker Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.

Machine-Made DEODORANT CAKES and BLOCKS *are big sellers!*



Make your deodorant and moth cakes with this heavy pressure foot press by the cold process and save money while you are increasing sales. A smooth, even cake will sell better because of its improved appearance and will cost less to make because this press not only cuts labor but saves 5% of your raw material. Why not let us make some sample cakes with your own para, naphthalene, etc., and submit complete information regarding cost and manufacturing process?

HOUCHIN MACHINERY CO., INC.
HAWTHORNE, N. J.

Bulk or Private Brand **WAX** Under Your Own Label

BRITE-DRYING FLOOR POLISH

LIQUID—PASTE—POWDER

AUTOMOBILE WAX
AUTOMOBILE CLEANER

WINDSOR PRODUCTS have been marketed for many years. Their success with the trade is due to the experience and care with which they are made. Our specialty is our private brand department, equipped with automatic printing presses to handle bulk business as well as small orders, without additional cost to our customers.

WINDSOR products and prices are right. Let us save you money and trouble in acting as your wax manufacturing department.

WINDSOR WAX CO.

50 CHURCH ST.

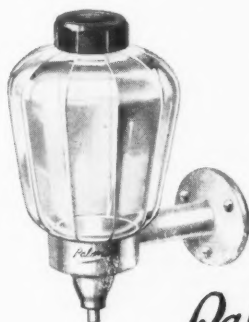
NEW YORK

Phone REctor 2-0661

Factory: 611-617 Newark St., Hoboken, N. J.

PALMER SOAP DISPENSERS

The Palmer SUPER SERVER Dispenser (right) is priced very low but has no equal in value. Metal parts are non-corrosive, stainless, chrome alloy. One piece bracket in beautiful satin chrome-like finish. Valve parts easily removed for cleaning or replacement. Crystal glass decagon bowl (opal glass on special order)—decagon black bakelite cap. Large 1-inch opening makes filling easy—no need for removing or inverting bowl. The lowest priced push-in dispenser—yet neat, compact, durable.



The Palmer "D.C." Dispenser (dependable construction), shown at the left, is the lowest priced dispenser offered. Has simple, positive spring-controlled valve. All metal parts chrome nickel plated. Fill through large 1-inch top opening without removing or inverting bowl. Crystal glass decagon bowl (opal glass on special order)—with decagon black bakelite cap.

Palmer
PRODUCTS INC.
WAUKESHA, WIS.
Adjacent to Milwaukee



PYLA-ODORS

COLOR AND PERFUME
IN A SINGLE OPERATION

BATH SALTS
LIQUID SOAPS
PARA BLOCKS
NAPHTHALENE

FAST COLORS
LASTING ODORS
MODERATE PRICES



PYLAM PRODUCTS CO., Inc.

Mfg. Chemists, Importers, Exporters

799 GREENWICH STREET, NEW YORK CITY

CABLE ADDRESS PYLAMCO

INDEX TO ADVERTISERS

For product classification see pages 118 and 120

* For further details see announcement in 1934 SOAP BLUE BOOK.

Alsop Engineering Co.....	115	*Leghorn Trading Co.....	April
*American Cyanamid & Chemical Corp.....	36, 110	Lethelin Products Co.....	114
Anchor Cap & Closure Corp.....	8	Lowell Sprayer Co.....	99
Anderson-Prichard Oil Corp.....	76		
An-Fo Manufacturing Co.....	116	Magnus, Mabee & Reynard, Inc.....	79
		Manufacturing Chemist.....	62
*Baird McGuire, Inc.....	75, 82	Maryland Glass Corp.....	March
*Barrett Co.....	109	*McCormick & Co.....	74
*W. Benkert & Co.....	88	McLaughlin Gormley King Co.....	70, 71
Blanchard Machine Co.....	64	Mechling Bros. Chemical Co.....	123
Book Advertisement.....	12	Metal Package Corp.....	3
*Bowker Chemical Co.....	April	Monsanto Chemical Co.....	Back Cover
*Breuer Electric Mfg. Co.....	111	W. L. Montgomery & Co.....	115
*Budd Aromatic Chemical Co.....	106	Murray Oil Products Co.....	April
Chemical Compounding Co.....	103	Naugatuck Chemical Co.....	6
Chemical Supply Co.....	108	*Newman Tallow & Soap Machinery Co.....	112
*Clifton Chemical Co.....	7	New York Soap Corp.....	42
*Columbia Alkali Co.....	10		
Compagnie Parento.....	124	*Niagara Alkali Co.....	13
*Consolidated Products Co.....	113		
*Continental Can Co.....	68	Owens-Illinois Glass Co.....	72
Curran Corp.....	123		
		Palmer Products.....	121
*Davies-Young Soap Co.....	11	Pease Laboratories.....	119
Derris, Inc.....	110	*S. B. Penick & Co.....	March
Dobbins Mfg. Co.....	106	Philadelphia Quartz Co.....	60
Dodge & Olcott Co.....	April	R. L. Polk & Co.....	123
*Dow Chemical Co.....	94	*John Powell & Co.....	67, 114
*P. R. Dreyer, Inc.....	102	*Proctor & Schwartz, Inc.....	64
*A. C. Drury & Co.....	116	Pylam Products Co.....	121
*E. I. duPont de Nemours & Co.....	4		
		Reilly Tar & Chemical Co.....	52
Eagle Soap Corp.....	2nd Cover	Rohm & Haas Co.....	78
Electric Sprayit Co.....	95		
Electro Bleaching Gas Co.....	13	*C. G. Sargent's Sons Corp.....	April
Entomological Testing Laboratories.....	119	Geo. A. Schmidt & Co.....	124
		Seil, Putt & Rusby.....	119
Federal Varnish Co.....	52	Sherwood Petroleum Co.....	107
Felton Chemical Co.....	20, 96	Skinner & Sherman.....	119
Fergusson Laboratories.....	42	Foster D. Snell.....	119
Fezandie & Sperrle.....	114	Soap Trade & Perfumery Review.....	50
Fort Shelby Hotel.....	124	*Solvay Sales Corp.....	101
Anthony J. Fries.....	April	*L. Sonnenborn Sons.....	92
Fritzsche Brothers, Inc.....	104	Sprayit.....	95
Fuld Brothers.....	66	Standard Silicate Co.....	April
		Stauffer Chemical Co.....	48
Garnet Chemical Corp.....	116	Stein-Brill Corp.....	117
*General Chemical Co.....	77	Stillwell & Gladding.....	119
General Naval Stores Co.....	100	*Stokes & Smith Co.....	38
*Givaudan-Delawanna, Inc.....	73, 3rd Cover	*Swann Chemical Co.....	114
Grasselli Chemical Co.....	30		
Ferdinand Gutmann & Co.....	117	Taub Laboratory.....	119
		Theobald Animal By-Products Refinery.....	46
Harley Soap Co.....	116	A. M. Todd Co.....	April
Hercules Powder Co.....	90	John Trageser Steam Copper Works.....	115
*Hooker Electrochemical Co.....	105		
J. L. Hopkins & Co.....	April	Ungerer & Co.....	Front Cover
Houchin Machinery Co.....	58, 121	U. S. Sanitary Specialties Corp.....	81
Huber Machine Co.....	64		
Hudson Mfg. Co.....	April	*Van Ameringen-Haebler, Inc.....	34
The Hull Co.....	123	J. A. Vaughan Mfg. Co.....	69
		Albert Verley, Inc.....	9
Illinois Chemical Labs.....	119	*Victor Chemical Works.....	48
Illinois Steel Co.....	54		
Industrial Chemical Salts Co.....	24	Cyrus Ward & Co.....	98
Interstate Color Co.....	April	*Warner Chemical Co.....	46
		Warren Soap Mfg. Co.....	113
R. A. Jones & Co.....	14	*Welch, Holme & Clark Co.....	50
		*White Tar Co.....	117
*Koppers Products Co.....	97	Wilson & Bennett Mfg. Co.....	108
Kranich Soap Co.....	53	Windsor Wax Co.....	121

Every effort is made to keep this index free of errors, but no responsibility is assumed for any omission.



Est. 1931

SOMETHING NEW!

A NO RUB HYDRO-DEGREASING FLUID
SPRAY IT ON—HOSE IT OFF

Cleans Greasy Cement Floors—Motors—Truck Chassis with
 Spectacular Results. Does Not Harm Skin or Hard Paint

NOTE:—GUNK is not just another cleaner but is a remarkable and successful solvent which quickly dissolves grease and oxidized oils and converts them into a form of liquid soap so that they may be easily rinsed off by hosing with cold water.

We wish to add a few high grade supply houses to our list of distributors in the East. Names and purchase order copies from national accounts will be furnished on request to well rated supply houses.

A sample gallon can of GUNK may be had at the drum price for trial.

THE CURRAN CORP., Mfg. Chemists
 114 Central St., Somerville, Mass.

MAILING LISTS

Pave the way to more sales with actual names and addresses of Live prospects.

Get them from the original compilers of basic list information—up to date—accurate—guaranteed.

Tell us about your business. We'll help you find the prospects. No obligation for consultation service.

FREE



**60 page Reference
 Book and Mailing
 LIST CATALOG**

Gives counts and prices on 8,000 lines of business.

Shows you how to get special lists by territories and line of business. Auto lists of all kinds.

Shows you how to use the mails to sell your products and services. Write today.

R. L. POLK & CO.

Polk Bldg.—Detroit, Mich.

Branches in Principal Cities

World's Largest City Directory Publishers

Mailing List Compilers, Business Statistics, Producers of Direct Mail Advertising.

POWDERED METAL POLISH

RADIATOR CLEANER

STOP - LEAK

in bulk

THE HULL COMPANY

305 Washington Street
 Brooklyn, N. Y.

MECHLING

EST.



1869

PHILADELPHIA
 CAMDEN, N. J.
 BOSTON, MASS.

MECHLING
BROS.

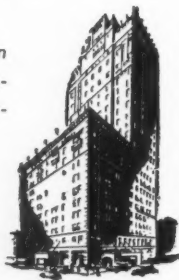
CHEMICAL COMPANY



GOOD FOOD at Sensible Prices

YOU'LL like the food at the Shelby —and the service, too, in any of its three popular priced restaurants. Also, you'll like the rooms and suites —there are 900 to choose from— all have circulating ice water, box-mattressed beds, private bath and tip-eliminating servidors. Rooms \$2 to \$10. Suites \$6 to \$25.

Lobby Shops. A location —in the heart of downtown Detroit—near everything. Garage.



**HOTEL Fort
Shelby**

MAYNARD D. SMITH
President
DETROIT

" AGLOW WITH FRIENDLINESS "

SPRA - O - DOR

Especially designed
for use in Sprays,
blending with the
basic odors to a
light, clean Bouquet.

*Sample and quotation on
request.*

Compagnie Parento, Inc.

NEW YORK CITY TORONTO
CROTON-ON-HUDSON, N. Y.

YOUR OWN BRAND Toilet Soaps at Small Cost

For Details Address

GEO. A. SCHMIDT CO.

Manufacturers of **SOAPS** of Every Description

236-238 West North Avenue.
Chicago.

CITRENE

BECAUSE OF

- —a sweeter and finer odor than Citronella Oil
- —lower and stabilized price
- —non-discoloration of soap
- —uniformity in odor value

Soap makers are recognizing the superior qualities of Citrene —a sweeter, more refined scent that appeals to buyers. And this powerful, more completely rounded odor effects a double saving—you can use less and it costs less.

G I V A U D A N
DELAWANNA, INC.

80 FIFTH AVE., NEW YORK, N. Y.

Branch Offices: Philadelphia Los Angeles Atlanta Cincinnati Detroit
Dallas Baltimore New Orleans Chicago San Francisco Montreal Havana



Monsanto

BEHIND every Monsanto product is a complete, efficient, well-balanced manufacturing structure. Plant and personnel combine to maintain leadership in quality.

The list for soaps, insecticides and disinfectants includes:

Phenol U. S. P.

**Methyl Salicylate
Monsanto**

Cresylic Acid

Coumarin Monsanto

**Santochlor
(Pure Paradichlorbenzene)**

Orthodichlorbenzene

Manufactured by

**Monsanto Chemical Company
St. Louis, U.S.A.**

New York * Boston * Chicago * San Francisco * Montreal * London



Chemicals

